

Acorn User

THE ALTERNATIVE FOR POWER COMPUTING

WWW.ACORNUSER.COM



A world of war

How the fantastic world of TEK was created

Showing off

Full in-depth report on the recent RISC OS South West Show

Mousing around

Sort out your rodent problems with this Gadgets special

The 56MHz battle

Castle Technology and RiscStation go head to head in our 56MHz Internet roundup

tau
PRESS

ISSUE 245



APRIL 2002

04 >

£4.20

summer SIZZLERS!

CDRW KINETIC RiscPC

The world's fastest RISC OS computer is available now! The Kinetic RiscPC delivers a breath-taking performance and is up to 40 times faster than the original RiscPC!

- Rev T StrongARM processor
- RISC OS 4
- 128Mb Fast SDRAM
- 2Mb VRAM
- 40Gb hard drive
- 40x CDRW CD ROM drive
- FREE software – Oregano, EasiWriter (reads MS Word docs), Resultz

Code	Description	Offer price
KIN53	Kinetic CDRW	£1291



Canon colour printer

S450 bubble jet printer

- Separate ink tanks
- 10 pages per minute
- Photo option available
- Text print feature

Requires IPrinters 1.53 or greater

Code	Description	Retail price	Offer price
PR145	Canon S450	£139	£119

Postscript Laser printers also available from £299

RICOH CD re-writer

Use our IDE CD burner to create CDs for archive and publication – also doubles as standard CD reader

- 40x read, 24x write, 10x rewrite
- FREE – !CDBurn software
- FREE – Internal fitting kit
- SCSI and faster drives also available

Code	Description	Previous price	Offer price
CDR25	CD re-writer	£179	£149

Mustek colour scanner

A4 flatbed scanner

- 30-bit
- Parallel port scanner
- Printer through connector
- ImageMaster & Twain and PC software
- 1200 dpi and SCSI versions also available

Code	Description	Brochure price	Offer price
SCA22	Mustek 600CP	£116	£95



iiyama LCD flat screens

- New flicker free TFT LCD technology
- Wide angle viewing (hor. 110° vert. 90°) (15" – 1024 x 768)
- Tiny footprint
- Max resolution 1280 x 1024
- 16 million colours
- 3 year on-site warranty



Code	Description	Offer price
MON21	Iiyama 15" LCD	£349
MON23	Iiyama 17"LCD	£549

Upgrade to KINETIC

- New SDRAM processor card for all RISC PCs
- 4x faster than equivalent StrongARM card
- Free 64Mb SDRAM
- Free RISC OS 4



Prices from £351.32 (trading up from RO4 and StrongARM)

SONY CD digital camera

Digital still camera with mini integrated CD burner

- 2.1 Mega Super HAD CDD
- 3 x Zoom (6x precision digital Zoom)
- MPEG Movie mode/voice
- Up to 1080 pictures per 156Mb CD
- 100% compatible with Risc PC



NEW from £759

SALES OFFICE OPEN MONDAY-FRIDAY

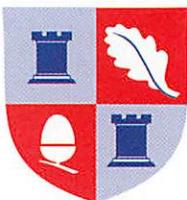
9am-5pm Tel: 01728 723200

24 HOUR ORDERING Fax: 01728 727427

E-mail: sales@castle.uk.co Web: www.castle.uk.co

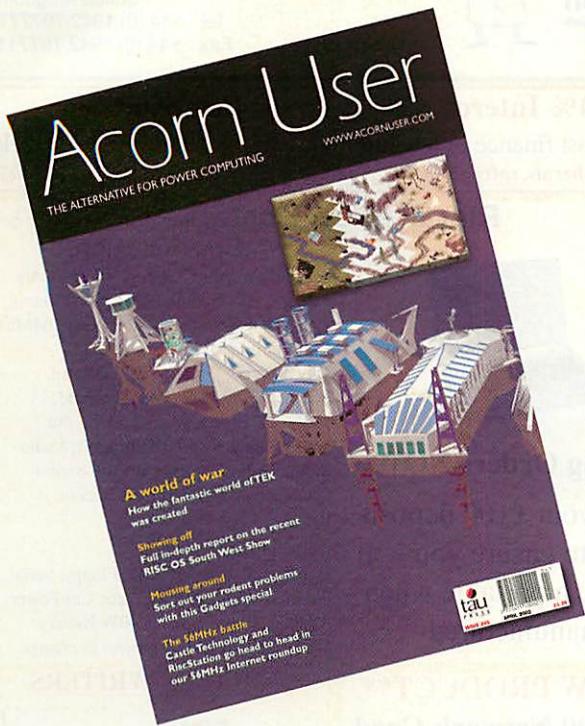
Castle Technology Ltd, Ore Trading Estate, Woodbridge Road, Framlingham, Suffolk IP13 9LL UK
Offers valid until 1st December 2002 or whilst stocks last. Prices include vat but exclude delivery which is £15 per order. Full terms and conditions available on request. Official education orders accepted. Payment by credit/debit card, cheque, postal order. E&OE

*FREE 15" CRT Monitor or FREE 600dpi Mustek scanner inc Imagemaster and Twain.



CASTLE

April 2002 Issue 245



Editor's comment

Lately, I've been thanking my lucky stars that I am a *RISC OS* user.

One the one hand, there's the system itself, in my case a *Kinetic RiscPC*. It is fast, stable (normally) and has a great user interface. When the computer does actually crash, it takes but ten seconds before I am back into the desktop. When I am deep in work, I tend not to notice the multitude of application icons building up on the iconbar; it's not unusual for me to suddenly realise I've got ten pieces of software running at the same time! Even with so much open at once, the machine is fast and stable.

On the other hand, there is the excellent software available for *RISC OS*. Without great software, what good is a great operating system? The combination of the two is what provides us with the system so many of us take for granted. Special thanks must surely go to Cerilica, Clares, David Pilling and all the other commercial developers who are still producing such excellent software for *RISC OS*, often at quite amazing prices. Then there's coders who devote their spare time to writing and porting software for us to enjoy, normally for free. A big thanks is surely due to these people, too, for the selfless dedication in bettering the platform.

What a great system. Here's to a long and successful future.

Michael Stubbs
Editor

Published by



28a Middle Hillgate
Stockport, Cheshire SK1 3AY
enquiries@acornuser.com
www.acornuser.com

Tel: (+44/0) 161 429 8902 Fax: (+44/0) 161 429 0685
Printed by The Manson Group Ltd, St Albans

Editor Michael Stubbs

Finance Manager Gary Duxbury
Distribution COMAG (01895) 444055
Production/Layout Michael Stubbs
Sales Steve Turnbull
Managing Director Sharon Henderson

Subscriptions:
(+44/0) 161 429 8902
Email: subscr@acornuser.com
13 issue subscription rate: £45.99 (UK),
£51.99 (EU), £63.99 (World)

Copyright © 2002 Tau Pres Ltd
No material may be reproduced in whole or part without written permission. While every care is taken, the publishers cannot be held responsible for any errors in articles, listings or advertisements and the views of the contributors do not reflect the views of the publishers.

Acorn User is available as speech from the Talking Newspaper Association UK.

Internet services provided by Real Ingenuity -
www.realingenuity.net

6 News

The latest news from the world of *RISC OS* and power computing.

15 Comms

David Dade goes speeding on the 'Net with ADSL.

17 Graphics

The latest graphics news plus a feature on some *RISC OS* artwork.

53 Education

The latest news from the education world, plus a special ROSES feature.

59 Hints & Tips

Castle Technology's technical director presents comprehensive help to solve any teething problems you might have with your Kinetic upgrade.

65 Letters

Your views on *Acorn User*, *RISC OS* and the general computing world.

Subscribe to Acorn User. See page 62 for full details.

19 DigiFlash

A digital camera user moves from the PC to the *RiscPC* thanks to Surftec.

21 Competition

WIN a copy of leading-edge DTP package *Ovation Pro*.

23 56MHz roundup

We finish out series on the 56MHz Internet computers.

27 TEK preview

A unique insight into how the world of TEK was created.

35 SW Show report

Detailed review of the recent *RISC OS* show.

41 S-Base

Detailed tutorial on this powerful database language.

45 Gadgets

Get a grip on those rodent problems with a Logitech solution.

51 Keyhole

Whose desktop is it this month?



It's time to upgrade to a modern computer



RiscStation Special Deal



I can't upgrade to RISCOS 4 because my Acorn is too old!

SOLUTION

A Modern R7500 + Computer System from only £21.72* per month and your old Acorn # taken as full deposit.

* APR 19.9 % #Any working RISCOS m/c.

"The R7500 series are currently the most highly featured machines available in the RISCOS world."

50 mip ARM7500FE system with 64Mb of fast 50ns Ram Memory, The only machine with BUILT IN ZIP drive support, Midi support, 3D sound, & sampler, (including FREE Audio Sampling and mixing software), 10baseT port as standard, RISC OS 4 as standard, High speed serial, High speed parallel, expandable to 256Mb.

Systems include Over £500 worth of FREE SOFTWARE

The enhanced R7500 Plus with 50ns 64MB/ 10.2G hard Drive			
Plus base only	£549 +VAT	£645.08	only £23.89 / month
Plus 15" System	£649 +VAT	£762.58	only £28.24 / month
Plus 17" System	£689 +VAT	£809.58	only £29.98 / month
Plus 19" System	£749 +VAT	£880.08	only £32.60 / month

Claim your FREE Midi cable with this Advert

from £669 + Vat (£786.08)
only £29.11 / month
Twintech base
from £669 + Vat (£821.33)
only £30.43/month

SCORCHER

The R7500 + Scorch from RiscStation arrives with a quality CD ROM Reader/ ReWriter and media, providing a brilliant CD mastering platform for home & business.

Claim your FREE 14" monitor with any Base Unit

netWORX netWORX HD



from £399 + Vat (£468.83) £15.32/month
HD from £449 + Vat (£527.57) £17.24/month

50 mip Arm7500 system with 16Mb memory, (HD version & Hard Drive), built in ZIP drive support, Midi support, 3D sound, & sampler, 10baseT port as standard, RISCOS 4 as standard, High speed serial, High speed parallel, expandable to 256Mb memory & hard drive / CD-ROM etc.

RiscStation Palmtop



From only £143.83 + VAT (£169.00 inc. VAT)

Basic Model £143.83 £169.00
With Plus Pack £169.36 £199.00
ClassRoom Pack (5) £720.00 £846.00
8 MB Machine with 1/2 VGA Screen
Built in WP, SS, Diary, Sketch, Jotter, Spellcheck and Internet WWW and Email s/w. Psion © Compatable.

Kodak LCD Camera



Only £99.00 inc Vat (£84.26)

Resolution 1152x 864
Built in Flash c-flash exp.
LCD monitor X2 Zoom

Lowest cost Camera



Only £59.00 inc Vat (£50.21)

Resolution 640x480
Takes Smartmedia to 64Mb , 8Mb inc.

Acorn



300Mhz Kinetic RPC

Latest Acorn StrongARM series machine
70MB, 10GB HD, 52xCD
from £935 + VAT (£1099) £34.51/month
Internet RPC 138MB, 30GB HD, 52xCD
£1,199 + VAT (£41.42 /month)
(includes internet pack)

Camera Accessories

Smart Media

32MB	£13.00	£15.27
64MB	£24.00	£28.20
128MB	£52.00	£61.10

SMC reader inc S/W £79 + Vat

Compact Flash

32MB	£16.00	£18.80
64MB	£25.00	£29.37
128MB	£43.00	£50.52
256MB	£91.00	£106.92

CF reader inc S/W £79 + Vat

CD-ROM WRITERS



"ScorchIT" CD Writer Pack

Upgrade your Acorn or RiscStation 7500 with a home CD authoring package as found in the RiscStation SCORCHER machine. This package contains the latest version of CD Burn, Writable and ReWritable media to get you started and one powerfull 20x10x 40x CD ROM Writer/Rewriter.

only £149 + Vat (£175.08)

SCSI 12x10x32x Re-Writer

only £189 + Vat (£222)

Removable media & CD's

	ex VAT	inc VAT
CDR 80 min Branded	£0.68	£0.80
CDR 80min 10 pk B'd	£5.95	£6.99
CDR 80min 50 pk B'd	£21.28	£25.00
CDR 80min 100 pk UB	£21.28	£25.00
CDRW CD-ROM	£1.00	£1.17
CDRW 10 pack	£8.00	£9.40
5.2Gb DVD RAM	£25.00	£29.37
LS120 Media	£4.00	£4.70
Zip 100 Media	£7.65	£8.99
Zip 100 Media 5 pk	£34.03	£39.99
Zip 250 Media	£9.40	£11.05
Zip 250 Media 5 pk	£45.00	£52.87
650MB PD Media	£19.00	£22.32
750Mb Nomi	£38.00	£44.65
2 GB Jaz Media	£68.00	£79.90
2.2 GB ORB Media	£32.00	£37.60

CD-ROMS



SCSI 8x
4way Autochanger
£75.00 + vat (£88.13)

52x IDE £30.00 £35.25 40x SCSI £65.00 £76.37
56x IDE £35.00 £41.12 32x SCSI £59.00 £69.33

External CD ROMS

52x IDE (with cable) £85 + VAT
40x SCSI I (with cable) £115 + VAT
40x SCSI II (with cable) £120 + VAT
6x 40x CD Tower (+HD space) £449 + VAT

Internet Packs from £85 + VAT (£99.88) available for all machines include Internet software, ISP setup and 56K modem

No More Balls!

Optical Wheel Mouse RSM330



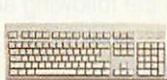
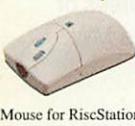
RS7500 / A7000 etc.
only £19.95 inc
 (£16.98 + VAT)
RPC Version
£38.50 inc.

Optical RF Wheel Mouse RSM400



RS7500 / A7000 etc.
only £39.95 inc
 (£34 + VAT)
RPC Version
£58.95 inc.

Cable-Free



Mouse for RiscStation & A7000 / Mica £19.95 inc.
Mouse for Risc PC / A5000 / A400 etc. £38.95 inc
Keyboard for RiscStation, RPC / A7000 £29.95 inc.

Trackball Mouse



R7500 / A7000
only £19.95
RPC £38.95 inc

	Ex. VAT	Inc. VAT
Acorn (RPC A5000 etc.) Mouse	£16.98	£19.95
Acorn (flex adapter) Mouse	£25.49	£29.95
A7000 (+) / RiscStation Mouse	£10.00	£11.75
Lower CASE Keyboard (PS2)	£29.78	£34.99
A400/A5000 Ergo Keyboard	£69.00	£81.08
A4 replacement keyboard	£49.00	£57.58
A4000 Keyguard (special needs)	£25.00	£29.37
A3000 / A300,400,500 Keyguard	£25.00	£29.37
A3 touchpad for Concept Keybrd	£25.00	£29.37

Refurbished PCs inc monitor

e.g. P2-266 inc. 15" monitor and
Win95 only £249.00 inc VAT
ring for other prices.



Bare Phoebe
cases
(no electronics
sorry)
Only £25.00
 (£29.38 inc)

Desktop FAX MODEMS

56k V92 Hayes Accura	£85.00	£99.87
56k V90 (Rockwell)	£42.00	£49.35
56k V90 Internal for RS	£49.00	£57.58
ISDN modem (external)	£79.00	£92.83
!Dialler	£17.02	£20.00
Oregano	£49.00	£57.58
Webster XL	£21.28	£25.00
Messenger Pro	£25.53	£30.00
ArcFax Fax software	£26.38	£31.00

MONITORS



15" LCD
only £270 +vat
 (£317.25)
(3 yr warranty)

	Ex VAT	Inc VAT
AKF52 Multisync 14" 1yr RTB	£127.00	£149.22
15" LCD (3yr on-site)	£270.00	£317.25
17" LCD (3yr on-site)	£425.00	£499.37
18" LCD (3yr on-site)	£POA	£0.00
15" SVGA 0.28 (3yr on-site)	£95.00	£111.62
15" SVGA 0.28 Multi-Media	£119.00	£139.83
17" SVGA 0.28 (3yr on-site)	£129.00	£151.58
19" SVGA 0.26 (3yr on-site)	£199.00	£233.83
21" SVGA 0.25 (3yr on-site)	£479.00	£562.83
15" Iiyama S500M1	£109.00	£128.08
17" Iiyama Vision Master 1401	£144.00	£169.20
17" Iiyama Pro 1411	£199.00	£233.83
19" Iiyama Pro 452 (S702JT)	£275.00	£323.12
19" Iiyama SM900MT1	£199.00	£233.83
21" Iiyama Vision Master 505	£535.00	£628.62
22" Iiyama Pro 511	£558.00	£655.65
SVGA 14" refurb 90 days wty	£42.00	£49.35
AKF12 PAL 14" refurb 90 days	£42.00	£49.35
AKF52/53 M/Sync refurb 90 days	£65.00	£76.37
AKF65 M-Media 14" refurb 90days	£49.00	£57.58
Multisync A300/A3000 cable	£8.50	£9.99

All monitors inc 3 yrs wty unless specified

COLOUR SCANNERS

All scanners inc RISCOS Software



PRINTERS



Mega-Deal
COLOUR
HP Laserjet 5
only £399.00 inc.
B/W Lasers from
£85 inc VAT
units are refurbished
with 90 days wty
other models available

	Ex VAT	Inc VAT
Postscript colour Inkjet from	A4 £199.00	£233.83
Postscript colour Laser from	A4 £1025.00	£1204.37
Postscript B/W Laser	A4 £245.00	£287.87
Canon BJC 2100 colour (e)	A4 £50.21	£59.00
Canon BJC S400 colour e	A4 £67.23	£79.00
Canon BJC S450 colour e#	A4 £85.11	£100.00
Epson Stylus 1520 colour	A3 £285.00	£334.87
HP 940 inc. RO driver	A4 £92.00	£108.10
HP 1220 inc. RO driver	A4 £288.51	£339.00
# Photo Drivers for	£58.72	£69.00
£ Needs Enhanced Drivers	£29.79	£35.00

Refurb dot matrix Printer from £10.00 inc VAT

3.5" IDE Hard Drives

	Ex VAT	Inc VAT
210Mb	£20.00	£23.50
500MB / 1GB	£30.00	£35.25
10.2GB *	£55.00	£64.62
20.1GB *	£60.00	£70.50
40.0GB *	£70.00	£82.25
60.0GB *	£83.00	£97.53
80.0GB *	£108.00	£126.90
100 GB *	£120.00	£141.00
120 GB *	£195.00	£229.12

SCSI HARD DRIVES

1.0 Gb	£35.00	£41.12
2.0 Gb	£69.00	£81.08
4.3Gb (5400 or 7200)	£80.00	£94.00
9.1Gb (7200 rpm)	£120.00	£141.00
18.6Gb (10K / 7200 rpm)	£152.00	£178.60
36.4Gb (10K / 7200 rpm)	£235.00	£276.12
73.4Gb (7200 rpm)	£575.00	£675.62

A3020

	Ex VAT	Inc VAT		Ex VAT	Inc VAT
170MB	£35.00	£41.12		£85.00	£99.87
340MB	£45.00	£52.87		£95.00	£111.62
500MB #	£55.00	£64.62		£105.00	£123.37
810MB #	£70.00	£82.25		£100.00	£117.50
1.0Gb #	£99.00	£116.32		£129.00	£151.58
2.1Gb #	£109.00	£128.08		£139.00	£163.33
4.3Gb #	£129.00	£151.58		£159.00	£186.83

A30XO version includes CD ROM if which can be used in A3020 or A4000. For external A3000 i/f add £20.00 +VAT # includes partitioning software

Upgrade	A310	A400	A540	A3000	A3010	A5000
1-2MB	-----	£25	-----	£15	£15	-----
2-4MB	-----	£50	-----	-----	-----	£45
4-8MB	£35 *	£75	-----	£35	£45	-----
RISCOS Carrier	£19 *	£19 *	-----	-----	-----	-----
RISCOS 3.1	£25	£25	£25	£25	-----	£25
MEMC1a	£20	£20	-----	-----	-----	-----
Arm3(30)	£45	£45	-----	£45 *	-----	-----
Arm3(25) & FPA10	£85	-----	-----	£85 *	-----	-----
FPA10	£45	£45	-----	-----	-----	£45
VIDC/IOC	£20	£20	£20	£20	-----	£20

A3020/A4000 memory only £40.

All above prices exclude VAT

SEE January Issue for ;

Software Bargains.

SEE September Issue for ;

Cooling Fans

Inkjet Refills

Network Products

SEE March Issue for ;

CD MP3 player for only £79.00 inc

Please ring for Prices

UPS's

500 VA
£49.00
+ VAT

Spike protection, RFI filter and
modem protector, Power boost
function to correct low mains voltage
More models available.

MEMORY

	Ex VAT	Inc VAT
8Mb SIMM EDO/FPM	£6.49	£7.63
16Mb SIMM EDO/FPM	£16.00	£18.80
32Mb SIMM EDO/FPM	£21.00	£24.68
64Mb SIMM EDO/FPM	£39.00	£45.83
64Mb SIMM RS 50ns	£49.00	£57.58
128Mb SIMM from	£85.00	£99.87
1Mb VRAM	£20.00	£23.50
2Mb VRAM	£69.00	£81.08
64MB 133M SDRAM	£12.50	£14.69
128MB 133M SDRAM	£25.30	£29.73
256MB 133M SDRAM	£49.50	£58.16

Removable Drives

Zip 100 IDE inc media	£49.00	£57.58
Zip 250 IDE inc media	£79.00	£92.83
Zip 250 parallel ext.	£115.00	£135.12
ZJZ 2GB SCSI ext.	£235.00	£276.12
ZJZ 2GB Parallel ext.	£299.00	£351.32
Orb 2.2 GB IDE	£165.00	£193.87
Orb 2.2 GB Parallel	£199.00	£233.83
10GB IDE Pullman	£75.00	£88.12
4GB Parallel Pullman	£135.00	£158.62
4GB P/Ill Datasafe	£115.00	£135.12
20GB IDE Pullman	£80.00	£94.00
10GB P/Ill Pullman	£140.00	£164.50
10GB P/Ill Datasafe	£120.00	£141.00
40GB IDE Pullman	£90.00	£105.75
20GB P/Ill Pullman	£150.00	£176.25
20GB P/Ill Datasafe	£130.00	£152.75

	Ex VAT	Inc VAT
Midi Break-out cable with driver sw	£15	+ VAT
Yamaha DB51 XG Wavetable Card, Midi cable & drivers	£99	+ VAT
Yamaha DB51 XG Wavetable Card, Midi cable, drivers & Evolution MK149 keyboard	£169	+ VAT
Module "MidiMax Card	£79.00	£92.83
MiniModule Midi card (A3x00)	£69.00	£81.08
Refurbished Midi card A3x00	£20.00	£23.50

(All Prices below include VAT)

THE BARGAIN BASEMENT

(for Software see Jan issue)

HOW TO ORDER

BY MAIL or PHONE: Cheques or P.O.s should be made payable to 'CTA DIRECT'.

CREDIT CARD / SWITCH please give name,

address, tel. no, card no, expiry date, issue no.

BY EMAIL: sales@ctadirect.co.uk

OFFICIAL ORDERS BY MAIL or FAX please

Carriage charges inc. ins. & packaging charged at cost

Small items (under 2Kg)...no more than £6 + vat

Transparency comes to ArtWorks

MW Software are to release a transparency module for *ArtWorks*.

Following MW Software gaining access to the source to the *ArtWorks*

kernel, development can proceed on fixing some long-standing bugs and also adding major functionality. The first major development to emerge from this access is the *Crystal* module.

The *Crystal* module, due out any day now, offers *ArtWorks* users full transparency support.

Crystal offers various types of transparency (Mix, Stained glass, Bleach) and allows you to apply a transparency type and percentage to any *ArtWorks* object, no matter whether it is a shape, a line of text, a sprite, a text area, etc.

Screenshots of *Crystal* in action,

along with pricing and ordering details can be found on the MW Software Web site at www.mw-software.com

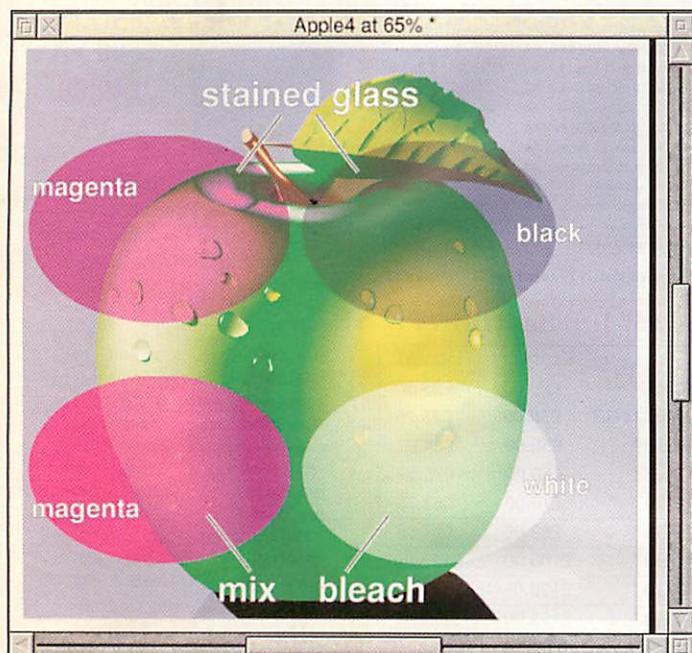
Crystal will require *RISC OS 3.5+*, *ArtWorks 1.7*, and quite a bit of memory (at least 16MB RAM recommended). A *StrongARM* is highly recommended.

Further information on *Crystal* and MW Software's other *ArtWorks* developments can be obtained by contacting MW Software at the following address or information is available on the MW Software Web site.

MW Software
Martin Würthner
Mannheimer Str. 18
67655 Kaiserslautern
Germany

Tel: +49 (0)631 3608205
Fax: +49 (0)631 3608203

www.mw-software.com
martin@mw-software.com



A healthy serving of e-mail

R-Comp have announced the server version of their popular e-mail client, *Messenger Pro*.

The new server edition will allow *RISC OS* users to share e-mail across a network to a broad range of computer platforms.

Designed for a small or medium office, or home network, the server edition allows email to be processed on a single, central *RISC OS* machine. Other *RISC OS*, or non-*RISC OS* machines connected on the same network may then download their e-mail from that central server.

For example, a child could be sitting playing games on a *Windows* PC, and be viewing mail without changing machines, whilst their parents were on the *RiscPC*.

The server appears just like standard *Messenger Pro 2* in use, making the move from existing versions simple and straightforward. Additionally, messages can be sent easily between different users on the server (without the need to go online) for effective internal messaging. If you travel a lot, and carry a laptop, you can download

mail from your home machine onto it from *Messenger Pro* server, allowing you to view your mail on the road.

Running any kind of server requires a reasonable system specification, although technically any machine capable of running *Messenger Pro* and fitted with a network card should be able to do the job. A fast hard disc is recommended! You will need a network to run *Messenger Pro Server Edition*.

Messenger Pro Server Edition provides an IMAP 4 rev 1 mail server, NNTP news server, and SMTP mail sending facilities. This allows it to operate with a broad range of 3rd party e-mail clients on different operating systems. Clearly *Messenger Pro Online* is recommended under *RISC OS*, and the *Server Edition* has been tested with various *Outlook* versions under *Windows*, as well as a number of *Linux* and Web-based e-mail clients.

Server Edition comes with a home-licence (4 client machines) which is also suitable for most small businesses. *Messenger Pro Online* is included in the box for use on *RISC OS* machines, so that there are no "hidden extra" costs.

The RRP of *Server Edition* is £100 inc VAT and delivery.

Existing users of *Messenger Pro 2* can upgrade as follows:

From *Messenger Pro 2.50* standard version - £70 inclusive

From *Messenger Pro Online 2.50* - £60 inclusive

If you require a licence for a larger network, simply add the normal *Messenger Pro* site licence cost (£100), although current *RISC OS* machines are perhaps not the best choice for large networks due to limitations with hard disc and network speeds.

RComp
22 Robert Moffat
High Legh
Knutsford
Cheshire
WA16 6PS

Tel: (+44) 01925 755043
Fax: (+44) 01925 757377

www.rcomp.co.uk
rcomp@rcomp.co.uk

Image Software and Liquid Silicon enhance POSum EPOS system

Image Software and Liquid Silicon, developers of the Electronic Point of Sale (EPOS) *POSum* terminal based upon *RISC OS*, are busy at work enhancing the product and broadening its markets.

Recent additions to the *POSum* software has been a newsround management module, which gives *POSum* a much needed feature for the UK market as Darren Windsor of Image Software explains; "Many of our small convenience stores include (or have inherited) newsrounds. Selling a basic EPOS package to these people when others are offering integrated EPOS and

newsround management packages would be an almost impossible task".

Other work to include membership and subscription-based payment models should allow *POSum* to be used in places such as fitness clubs, health clubs and gyms.

Various International translations are underway, including French and Dutch, to allow *POSum* to be sold in those markets, along with new modules such as a Pub and Club module to allow *POSum* to be used in bars, restaurants and clubs – a very lucrative market.

Image have also been expanding their reseller network, with four UK-based resellers, the latest one being setup on the Isle of Wight.

They are always on the lookout for new resellers to provide a local sales contact for new customers so contact Alan Gibson of Liquid Silicon on 01592 592265 if you are interested.



Alan Gibson
International Distribution Manager
Liquid Silicon
2 Forth Avenue
Kirkcaldy
Fife
KY2 5PN

Tel: +44 (0)1592 592265
Fax: +44 (0)1592 596102

www.epos.org.uk
sales@liquid-silicon.com

Image Software
48 Hinchliffe Road
Poole
Dorset
BH15 4ED

Tel: +44 (0)1202 269720
Fax: +44 (0)1202 685072

www.imagesoft.co.uk
customer.services@imagesoft.co.uk

Virtual Acorn faces new legal challenge

John Kortink, the author of the popular image processing software *Creator* and *Translator* has launched a public attack on Virtual Acorn claiming that several of his packages have been included without his permission and thus breaking his licence agreement.

The dispute involves copies of *Translator*, *Creator* and *Earthmap* being included in the hard disc image which *VirtualA5000*, the *RISC OS* emulator for *Windows*, installs by default.

In a recent newsgroup posting, John states "Virtual Acorn are supplying my software illegally...My copyright rules specifically state that my software may not be included in products without my approval.

There are good reasons for this. It is to prevent my hard labour being abused only to help entice people buying said products. As such, regardless of the proposed 'value' of

the mere side-effect of the software being distributed just a little more (which is nil, and this is 15 years of experience talking), it has a very clear commercial value, and, consequently, proper negotiations are in order"

John continues "Virtual Acorn have only offered to remove my software from their product, but will not recall and will continue to sell existing copies of the CD-ROM that contain my software. They have declined to solve this matter in any proper way, as I have kindly proposed"

Despite Virtual Acorn issuing a public apology to John, it looks like this matter is still unresolved, and has started one of the fiercest newsgroup debates in recent times.

The main crux of the issue seems to resolve around whether John's software forms part of "the product", or whether it is included as a "free extra". Either way, it

does seem apparent that John was not contacted prior to his software being included, although author, Aaron Timbrell, has apologised for that error:

"We did make strenuous attempts to contact all authors concerned. We plainly did miss people for which I am quite happy to apologise.

The disk build had to be done in a short time scale and was assembled with the help of a number of testers who suggested applications that they thought should be included"

Aaron continues "If anyone is unhappy about a product being included then please do tell me and I will of course remove it at once, as I have done for John."

Given the uncertainty surrounding Virtual Acorn's legal position on *RISC OS* 3.11, it remains to be seen whether Pace take Virtual Acorn up on that latest offer!

New XScale processor ranges announced

Intel®, the world's largest chip maker, have announced two new processor ranges based upon the *StrongARM* derivative, *XScale*.

The first, the Intel® *PXA250* and Intel® *PXA210* applications processors will enable the ability to deliver richer music, movies and games as well as many of the latest applications being developed for the mobile workplace. The new processors complement the Intel® *StrongARM SA-1110*, currently the leading platform for Pocket PC devices being used in devices such as *Palmpilot* and Compaq's *iPAQ*.

The Intel *PXA 250* processor, running at clock speeds up to 400 MHz, delivers advanced integration, leadership multimedia performance and improved power savings required for many full-featured handheld communicators, telematics systems and PDAs. Running at speeds up to 200 MHz, the Intel *PXA210* applications processor delivers a highly integrated, low-power solution for cell phones and entry-level handheld and wireless devices.

Building on our beloved *StrongARM* technology, the Intel *XScale* microarchitecture core was engineered to improve the performance of a wide variety of wireless Internet devices as well as powering networking infrastructure equipment. Both technologies are fully ARM architecture compliant, enabling software compatibility for products based on Intel *StrongARM* and Intel *XScale* microarchitectures. This announcement marks the first general-purpose processor based on the Intel *XScale* microarchitecture for the wireless device market segment.

These new processors feature architectural enhancements including support for the new Turbo mode technology. Turbo mode enables the processor to scale the performance as high or as low as necessary in a single clock cycle, which helps conserve battery

life while still providing the necessary boosts in performance. In addition, the new micro-power management features for these devices allow the new processors to potentially use less than half the power at the same performance levels of today's Intel *StrongARM SA-1110* applications processor.

To increase multimedia efficiency and performance, Intel have added Intel® *Media Processing Technology*. It is designed to work specifically with the device's audio, video and gaming applications to increase the number of frames per second in videos, improve sound quality and give advanced graphical effects.

Intel have signed up an impressive array of vendors who will be using *XScale* in their products : Acer, Casio, Compaq, DaimlerChrysler, Fujitsu, Fujitsu-Siemens, Hewlett-Packard, Hitachi, Intermec Technologies, InFocus, Johnson Controls, NEC, Symbol Technologies and Toshiba Corporation.

In their press release, Intel list the operating systems that will support the new processor. These include Microsoft *Windows CE.Net*, *Windows Pocket PC 2002*, *PalmOS*, *SymbianOS*, and embedded *Linux*.

In addition to the list above, more than 200 independent software vendors are introducing versions of their popular applications in support of the new processors. Adobe, Macromedia, PacketVideo, RealNetworks, Inc., and other companies have optimized their software to provide Intel-powered devices with rich audio, video and gaming capabilities.

Products using the new processors are expected to be available to consumers by mid-2002.

The other main Intel announcement came at this year's Intel Developer Forum in San Francisco where Intel unveiled a family of network processors and a processor for networked storage application based on the same Intel® *XScaleT* technology.

These new Intel *XScale* technology-based products include the industry's broadest line of network processors, which are up to 16 times faster than previous offerings.

Intel also unveiled an integrated I/O processor, boasting more than twice the speed of previous Intel I/O processors, aimed at reducing the cost and

complexity of designing networked storage devices.

This is a lucrative market for Intel. Network processors are programmable chips that integrate the functions necessary to transport packets of data in a network. They form the foundation for a wide variety of communications equipment and appear in a multitude of devices from Network Interface Cards (NIC) to switches, hubs, routers and high bandwidth optical devices (e.g. Gigabit Ethernet)

Intel are pushing the lower power consumption features of the architecture along with high performance "so products will not overheat in densely packed equipment racks".

The new processor family includes the Intel® *IXP2800* network processor for network core applications, such as ultrahigh-speed switch/routers; the Intel® *IXP2400* network processor for multiservice switches and similar equipment at the network edge; and the Intel® *IXP425* network processor for equipment that brings digital subscriber line (DSL), cable Internet service and wireless networking to homes and offices.

The fully programmable *IXP2800* and *IXP2400* network processors operate at 10Gbps and 2.5Gbps, respectively, and utilise a technological advancement called *Hyper Task Chaining* that enables the processors to perform numerous operations simultaneously, thus ensuring full network performance and sufficient "headroom" to accommodate complex services.

The *IXP2800* network processor will be the first communications chip built on Intel's 0.13-micron technology, increasing performance and decreasing die size.

The *IXP425* network processor simplifies system design by supporting voice, video and data applications across a wide range of transport mediums, including common versions of DSL, Internet cable, HDLC, IEEE 802.11x wireless and Ethernet.

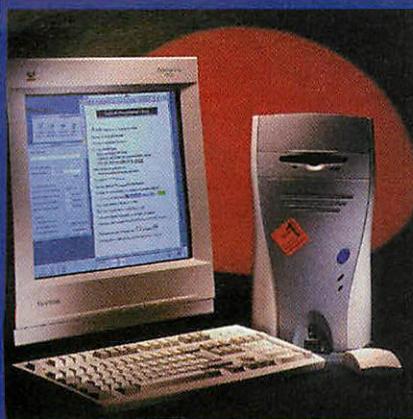
These additions to the *StrongARM*-based *XScale* range means Intel is putting heavy resources into developing the processor and increasing its market - which will mean *XScale* will be around for a long time to come. Now all we need is that 32-bit *RISC OS*.

developer.intel.com/design/xscale



Liquid Silicon

• Computers & Music Hardware • Upgrades • Software • Cables etc.



Call us for your nearest UK dealer for the **POSum** point of sale systems and the **EBMS** business management solutions.



Authorised
Installer



Registered
Developer



TDK®

Discs (e.g. 20x black discs - £6.28)
Batteries (e.g. 4x AA Xtra alkaline - £2.14)
Also Audio & Video Tapes, Mini Discs,
CDRs, DAT tapes etc.

FREEPOST EH2725
Kirkcaldy, Fife, KY2 5BR
United Kingdom

Tel: 01592 592265 Fax: 01592 596102

email: sales@liquid-silicon.com
http://www.liquid-silicon.com

We will attempt to match or beat **any** advertised price - even special offers.

Our free catalogue contains over 2000 items.

Please ask for a copy or visit our web site.

32-bit MIDI Sequencer

Powerful
Flexible
Easy to use drag & drop
Controller maps (e.g. tempo and velocity)
easily alterable by drawing with the mouse
Patterns can be linked to reflect changes made to other patterns
Handles System Exclusives
Multitasking playback
Supports any MIDI interface, including parallel and serial
Up to 182 MIDI channels and no track limit
Free demo disc available
Now available - £129.00

MELIDI

Memory Upgrades

Please call to check current prices.

Risc PC/A7000/RiscStation/Mico SIMMs:

16Mb FPM	£28.20
32Mb EDO (HC, works in Risc PCs)	£26.75
64Mb EDO (works in Risc PCs)	£39.00
128Mb EDO	£77.55
2Mb VRAM	£92.00

Music & Sound Section

Please call for other musical items

MIDI interfaces:

MIDI Max II Internal 1x1x1	£93.95
Parallel Port 1x1x1 (back in stock)	£92.95
RiscStation MIDI drivers & cable	£17.95
RiscStation XG card & cable	£116.95
RiscStation XG card, cable & keyboard	£245.95
Sibelius 6	£99.95
Sibelius 7 Student	£319.95
Sibelius 7	£520.95
Sibelius for PC/Mac is also available	
Sound module serial driver	£37.95

Other Hardware

Mouse (Genius/STD Acorn-compatible)	£19.95
Mouse (PS/2 Logitech)	£14.99
PS2MouseMini adaptor for older machines	£18.95
Printers	£Call
Risc PC second slice (no PSU)	£95.00
RISC OS 4 (fitting available)	£109.95
RiscStation second serial port	£10.95
Scanners	£Call
StrongARM & RISC OS 3.7	£269.00
StrongARM & RISC OS 4	£299.00
ViewFinder card	£235.00

Other Software

Abuse	£20.00
Ankh	£23.00
CD Burn	£55.95
Chaos Engine	£19.50
DataPower 2	£165.00
Doom+ CDs	£30.00
Descent CDs	£25.00
Desktop Repton 3 CD	£15.95
DialUp & Messenger Pro	£54.95
EasiWriter Pro+	£139.95
Exodus	£22.00
FastSpool+	£17.50
Heroes of Might & Magic 2	£32.00
Kirsalis Collection Gold CD	£25.95
OHP 2	£37.95
Oregano CD	£57.50
Other Worlds CD	£17.95
Ovation Pro	£138.95
PC Pro 3	£70.00
Personal Accounts	£44.00
Photodesk Olympic	£127.95
Prophet 3+ Pro	£160.00
Quake	£22.00
R-Comp Internet Suite	£68.95
Schema 2	£121.50
SiteWriter	£58.95
Sleuth 3	£65.95
Sound Plugin	£11.50
SVG Plugin	£11.50
Syndicate+	£26.50
TBA Games CD	£20.00
TechWriter Pro+	£209.95
WebFX3D	£24.50

Books & Manuals

RISC OS Manuals CD

£29.95



All prices INCLUDE VAT & UK carriage

Official orders, foreign orders and callers welcome.



Manchester name change

Following close on the heels of the Wakefield group, the Manchester Acorn User Group (MAUG) are changing their name to the RISC OS North West User Group (RONWUG)

MAUG was founded in 1997, and were visited by Acorn twice within the first few months of existence.

As such, the Acorn was retained in the group title for some years as the most useful reference point for the existing Acorn community, even after the demise of Acorn itself.

However, the committee and its members felt it was time for the group to move on, particularly as the RISC OS market evolves and there are now four different companies selling new RISC OS 4 based products which do not bear the Acorn brand name.

The change in name of the group also reflects the fact that, whilst their meeting venue remains only 15 minutes' tram ride from the centre of Manchester (and a few hundred yards from Manchester's M60 orbital motorway), regular visitors and speakers come from a wide range of locations including Liverpool, Preston, Lancaster and West Yorkshire.

The clubs' contact details have also changed, although their meeting date and venue remains the third Wednesday of each and every month at the

Trafford Metrvick Rugby and Cricket Club in Sale. Membership and admission are still free.

RONWUG will continue MAUG's role of supporting and promoting RISC OS hardware and software development, both locally and nationally.

So if you haven't found time to visit before, paying a visit is a great way to meet other RISC OS users and developers, and find out more about what's going on in the RISC OS world in a friendly and informal atmosphere.

Forthcoming RONWUG meetings:

17th April:	David Bradford (APDL/ProAction)
15th May:	Topic & speaker to be confirmed
19th June:	Topic & speaker to be confirmed

All meetings take place at Trafford Metrvick Rugby & Cricket Club which is just a few hundred yards from M60 J7, with plentiful free parking right outside, and easy ground floor access.

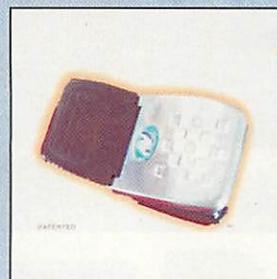
It is on the bus route from Manchester city centre, and is about fifteen to twenty minutes walk from Dane Road Metro station.

www.ronwug.org
info@ronwug.org

In brief

Pump up your laptop

A US company called Aladdin Power has developed a product called a *Step Charger* which it says is capable of producing enough electricity to quickly recharge a laptop computer. Roughly the



size of a paperback book, the device contains a pedal that if pumped by your foot for a few minutes, will reportedly release enough power to recharge the battery in your laptop. A device like this would be an ideal accompaniment to the new RiscStation sub-notebook.

www.aladdinpower.com

Money in your mobile

Vodafone plans to launch a service in the UK that will allow you to add online charges to your mobile phone bill. The system is designed to handle small charges - up to £5. Vodafone has signed up 50 Web sites that will use the system to pay for ring tones, phone icons, and video clips. Vodafone has competition from a number of companies like Paybox and of course from credit cards.

DARC April meeting

The April meeting of the Derbyshire Area Risc Club will be their AGM and will be held on Monday April 8th. This will be followed by a session on the practical aspects of setting up a simple network between RISC OS and PCs.

As usual the meeting starts at 7.30pm at the Parish Hall, St Alkmund's Church Duffield, (just off the A6 north of Derby) Derbyshire. Tea, coffee and biscuits are available during the evening and you are welcome to come to the pub after the meeting. There is ample free car parking. A map is available from their Web site. Visitors are always welcome

www.darc-comp.org.uk

BAUG April meeting

The Bottisham April meeting will be their AGM so why not go along and take part in what will undoubtedly be one of the biggest celebrations of the year! A splendid buffet will be provided.

[come.to/baug](http://www.come.to/baug)

TEK 1608 released at last

Artex software have announced that the long awaited release of their realtime strategy game, *TEK 1608* will be April 15th 2002

TEK 1608 has been in development since October 1999 and boasts some impressive features:

- Hi-res raytracing graphics
- Network/Internet/Modem multiplay
- Fast graphic engine
- Stunning gameplay
- Scalable resolution
- Films and high quality music

The game features multiple camera windows, lots of units, buildings, and different levels, and will be available on CD.

Artex claim that *TEK 1608* will run on most modern RISC OS hardware

including RiscStation R7500, RiscPC (including the *Kinetic*), the *Mico*, and the yet-to-appear *Omega*.

We suspect a *StrongARM* would be highly recommended for the *RiscPC* if you are not using a *Kinetic* processor card.

The game runs in screen resolutions from 640x480 up to 1024x768.

As an extra bonus to purchasers, the *TEK* package will also contain the full versions of the other Artex titles *Exodus - The Colonisation of Space*, the graphical adventure game *Ankh - The Tales of Mystery* and the puzzle platform games *BotKiller* and *BotKiller 2*.

TEK 1608 may be purchased direct from Artex, RComp, or your local dealership.

www.artexsoft.com

Lexmark Laser Printers

Hi Spec Robust units at bargain prices

Limited
Quantity

600DPI, 12ppm, 4MB, Postscript3 and HP PCL6 tray fed, straight paper path option, 20,000 ppm duty cycle, 5000 page toner/drum.

£260†+£10p&p

Network version £310†+£10p&p

LCDs 15" £340, 17" _{1280x1024} £580, 19" _{1600x1200} £1520

S/H StrongARMS
from £120

Refurbished hi-spec monitors

15" £60† + £10P&P

17" from £110† + £15P&P

20"/21" from £260† + £20P&P

Phone for full specifications.
3 month warranty

Offers from  4D

HP Lasers (Refurbished)

HP6L 600dpi 6ppm
£120† + £10p&p

Price Drop!

Price Drop!

S/H RiscPCs from £180†

RiscPC, RO 3.60, 32MB, 1MBvram & HD £200†

StrongARM Mk3 RiscPC, RO 3.7, 32MB
1MBvram, HD, CD & 14" Monitor £430†

A7000 RO 3.6, 12MB DRAM & HD £80†

AKF60 (£50† with system) £60†

† Fourth Dimension products have no VAT

£20 OFF S/H Ethernet Interfaces

10base2 or T Access+ podules

10base2 & T Access+ podules

10base2&T Access+ mini podules

10base2 or T A3020/A4000 NIC

£55†

£65

£40†

£40†

£69†

£700†

£170†

£680†

£260†

£510

Last few!

IDE CD ReWriter 161032 with Acorn S/W £150

20GB IDE Hard Disc £110

**RPC-PC Network pack, Interfaces cables
& Lanman98 £185**

Printer Port 250MB Zip Drive with S/W £185

RAM A7000/+/RS7500 32MB £40, 64MB £55

RiscPC 64MB £70 & 128MB £130

2200+ Product pricelist at

<http://www.cjemicros.co.uk/prices/>

17.4" LCD 1280x1024

Two Analogue Inputs £680



&



All CJE prices **INCLUDE VAT @17.5%**

& UK mainland delivery. Official Orders Welcome E&OE
Prices subject to change & stock.

Items marked† are sold by 4D (Fourth Dimension) and have no VAT

CJE Micro's & 4D
78 Brighton Road
Worthing
West Sussex
BN11 2EN

210+ extra
titles added

Software Sale

Up to 90%+ OFF

400+ 270+ Educational Titles

340+ 250+ Other Programs

<http://www.cjemicros.co.uk/swoffers/>

All items in stock as of the 7th March 2002 but stocks are limited, so don't be disappointed and order today!

Refurbished hi-spec monitors

15" £60† + £10P&P

17" from £110† + £15P&P

20"/21" from £260† + £20P&P

Phone for full specifications.
3 month warranty

Offers from  4D

HP Lasers (Refurbished)

HP6L 600dpi 6ppm
£120† + £10p&p

Price Drop!

Price Drop!

S/H RiscPCs from £180†

RiscPC, RO 3.60, 32MB, 1MBvram & HD £200†

StrongARM Mk3 RiscPC, RO 3.7, 32MB
1MBvram, HD, CD & 14" Monitor £430†

A7000 RO 3.6, 12MB DRAM & HD £80†

AKF60 (£50† with system) £60†

† Fourth Dimension products have no VAT

£20 OFF S/H Ethernet Interfaces

10base2 or T Access+ podules

10base2 & T Access+ podules

10base2&T Access+ mini podules

10base2 or T A3020/A4000 NIC

£55†

£65

£40†

£40†

£69†

£700†

£170†

£680†

£260†

£510

Last few!

IDE CD ReWriter 161032 with Acorn S/W £150

20GB IDE Hard Disc £110

**RPC-PC Network pack, Interfaces cables
& Lanman98 £185**

Printer Port 250MB Zip Drive with S/W £185

RAM A7000/+/RS7500 32MB £40, 64MB £55

RiscPC 64MB £70 & 128MB £130

2200+ Product pricelist at

<http://www.cjemicros.co.uk/prices/>

17.4" LCD 1280x1024

Two Analogue Inputs £680



&



All CJE prices **INCLUDE VAT @17.5%**

& UK mainland delivery. Official Orders Welcome E&OE
Prices subject to change & stock.

Items marked† are sold by 4D (Fourth Dimension) and have no VAT

CJE Micro's & 4D
78 Brighton Road
Worthing
West Sussex
BN11 2EN

£20 OFF S/H Ethernet Interfaces

10base2 or T Access+ podules

10base2 & T Access+ podules

10base2&T Access+ mini podules

10base2 or T A3020/A4000 NIC

£55†

£65

£40†

£40†

£69†

£700†

£170†

£680†

£260†

£510

Last few!

IDE CD ReWriter 161032 with Acorn S/W £150

20GB IDE Hard Disc £110

**RPC-PC Network pack, Interfaces cables
& Lanman98 £185**

Printer Port 250MB Zip Drive with S/W £185

RAM A7000/+/RS7500 32MB £40, 64MB £55

RiscPC 64MB £70 & 128MB £130

2200+ Product pricelist at

<http://www.cjemicros.co.uk/prices/>

17.4" LCD 1280x1024

Two Analogue Inputs £680



&



All CJE prices **INCLUDE VAT @17.5%**

& UK mainland delivery. Official Orders Welcome E&OE
Prices subject to change & stock.

Items marked† are sold by 4D (Fourth Dimension) and have no VAT

CJE Micro's & 4D
78 Brighton Road
Worthing
West Sussex
BN11 2EN

New EU tax proposal

A decision by the European Council for Economics and Finance to adopt in principle a proposal from the European Commission to impose VAT on non-European Union e-tailers is drawing accusations of protectionism, and endangering the growth of global e-commerce, according to research house Yankee Group.

Under the plan, non-EU e-tailers would be charged VAT at the rate applicable in the country where the customer resides but European Union members would be required to charge VAT at the rate charged in the country where their business was actually registered.

This would make it easier for European Union members to conduct e-business in Europe because they would only need to calculate a single tax rate.

They could also benefit by registering their companies in those European Union countries that enjoy a lower tax rate than

their native countries.

Some European companies are welcoming the legislation because it goes some way toward leveling the playing field and promoting fair competition within Europe.

The view from the Yankee Group is that if the proposal goes ahead, US e-tailers may re-evaluate their European activities in the face of rising costs.

It may also herald a political battle between Europe and the United States as many of the largest e-tailers in Europe are from the United States.

Other potential downsides to the proposal are that the tax would apply to digital downloads as well as physical goods, and could have a major impact on the growing B2C market of paid downloads for digital music and video.

A recent European Union report showed that European e-commerce activity is falling behind other regions.

IBM makes fastest-ever chip

IBM has created the world's fastest integrated circuit. The new chip, which is aimed at makers of fiber-optic switches and other networking devices, runs at more than 110 gigahertz, which means it turns on and off more than 100 billion times a second. The higher speeds will enable companies to build telecommunication switches that can handle far more fiber-optic communication lines. The new chip is based on silicon germanium (SiGe), a material that uses a layer of germanium to achieve high speed while taking advantage of the low cost and workability of silicon.

The increase in speed will have an immediate impact both on optical communications networks and on high-frequency wireless communication gear. But the new transistors are also likely to be incorporated into desktop computing devices, where they will support the emerging 10 gigabit Ethernet network standard. IBM pioneered SiGe technology and now has 80% or more of the SiGe market. The market for SiGe was about \$320 million last year, and is predicted to grow to \$2.7 billion by 2006.

Until recently, the semiconductor

industry believed that it would have to migrate to new materials and new production methods in order to achieve greater switching speeds. But SiGe can be manufactured on standard complementary metal oxide semiconductor (CMOS) production lines. This gives SiGe a significant cost advantage over more exotic materials like indium phosphide and extends the useful life of silicon-based production technology.

Another benefit of SiGe is that it will permit a new generation of faster communications devices that require far less power and space than their predecessors.

Telecom carriers find that as much as 30% of their operating expense is buying power for their switches.

So the low power-draw of devices incorporating these chips should appeal to the carriers. IBM and the switch makers hope that this operating cost advantage will set off a round of capital purchases by the telcos, as they drive to reduce their operating expenses.

Intel is pushing their new XScale-based network processors for precisely the same reason.

In brief

MS pushes Windows for cars

Microsoft has announced that BMW's new 7-Series sedan would use Windows CE software to run its in-dash control computer. Microsoft said that it has Windows CE in 13 vehicle lines worldwide, with nine more to be



announced by the end of the year.

The announcement is a milestone for Microsoft, which has struggled for a foothold in the car market. Sun already has agreements with General Motors and Ford to use its Java technology in their new cars.

We do wonder what legal repercussions might arise... "Sorry officer... I had no idea how fast I was going, My dashboard has crashed!"

Remote control mice?

Scientists in the US have pioneered a controversial process that involves implanting tiny microprocessors, about the size of the grain of sand, into the brains of mice. These small chips, when activated by an electromagnetic pulse, will stimulate the brain into moving certain muscles, depending on the location of the implant.

At present the research has proved successful in allowing scientists to "remote control" the limbs of rodents, but they believe similar techniques could be used on other animals, and eventually humans.

Human rights campaigners who are opposing the research claim that allowing scientists control of the human body by "remote control" could lead to the creation of human "drones" who have no control over their own actions and as such are "above the law".

Digital characters "talk" to the deaf

A pilot project by Consignia (aka The Post Office) will use digital "avatars" as signing translators. The avatars, which are computer animations designed to look and move like real people, could significantly expand the ways deaf and hard of hearing people communicate with the hearing world.

A computer program takes spoken English and converts it in real-time to text. The digital avatars then take this English text and sign its meaning on a display screen, in effect becoming a translator between spoken English and British sign language.

The deaf and hard of hearing account for 8.6 million of the 59 million people in the United Kingdom.

Neil Spellings
news@acornuser.com

RISC OS

SELECT

Make the right choice for the future with

RISC OS Select

Keep up to date with every new version of RISC OS as it appears!

The RISC OS Select scheme is the new way of supplying RISC OS upgrades. It provides a ROM image which is soft-loaded over the internal RISC OS 4 ROM, along with a new Boot sequence and applications. Distribution of the updates, and technical support information, will be primarily via the Select Web site, with periodic releases on CD. Payment for the scheme is made by annual subscription. All you need is a machine with RISC OS 4 already in ROM on which to install the RISC OS Select versions of RISC OS 4.

RISC OS fans! Join the

RISC OS

Foundation

and receive our ground-breaking quarterly CD magazine

FOUNDATION
RISC User



Now entering volume 3!

Foundation RISC User is a truly innovative publication from RISCOS Ltd that supports the heart of the RISC OS market. The magazine articles combine useful information with software resources that can be launched with a simple click on a link. Every issue is packed with a wide range of substantial and authoritative features from respected writers, along with a comprehensive and fully integrated database of current RISC OS products, developers and user groups. Altogether, it's arguably the most innovative and high quality CD magazine on any platform.

What does the Select scheme provide?

By joining Select you will receive the following benefits:

1. Periodic updates via the Select private Web site.
2. Up to three CDs per year, containing the latest version of RISC OS plus optional beta-test copies of software components in development. Every CD will be bootable and contain a full, working disc image that allows the easy selection of different boot sequences.
3. The right to upgrade up to ten RISC OS computers at one site. Select is a personal scheme: you only need one subscription even if you own several machines. However, RISC OS 4 is needed for each one: Select cannot be used with RISC OS 3.7 or earlier.
4. Affiliate Registered Developer status: if you are a programmer, joining Select entitles you to become an Affiliate Developer for no extra charge, and have your products included in the Database section of Foundation RISC User magazine and on the Web site.

RISC OS 4 upgrades and Select scheme prices

Subscriptions to Select are available on an annual basis, and may be purchased in combination with a RISC OS 4 upgrade.

RISC OS 4 upgrade plus Select subscription: £179

RISC OS 4 upgrade only (new low price!): £109

Select subscription only: £105

(for existing RISC OS 4 users)

Select subscription only: £99

(for Foundation members)

Select group subscription: £300

(for sites with more than ten machines)

All prices above include VAT.

Please see our Web site for further pricing details, overseas prices etc.

Testimonials from readers of Foundation RISC User

- "The interface is very friendly and better than my perception of what a CD-based magazine would be like!" — Andrew Weston
- "The whole CD is a joy, and something our platform can be proud of." — Geoff Steeper
- "The Foundation CD has contradicted my opinion that I wouldn't be able to read a CD magazine happily. It's very nicely laid out." — Fred Bambrough
- "Congratulations on Foundation RISC User... it works smoothly, looks good and has masses of useful and interesting content." — Gavin Wraith
- "Keep up the excellent work! (And what I REALLY appreciate is someone who can write, spell, talk sense, and knows his its-es and its-es!) — Jeremy Roberts
- "It's a really excellent job." — David Pilling

Sample Foundation RISC User Online!

Visit our sampler edition, Foundation RISC User Online, at <http://foundation.riscos.com/fru.htm>

FOUNDATION
RISC User
ONLINE

Beat the
price rise! Join the
Foundation or renew
your membership by
31st May for just
£35.25
(£30 ex. VAT)

From 31st May, prices will increase as follows:
UK: £33+VAT (£38.78); EC: £35+VAT (£41.13);
Non-EC countries in Europe: £35 (no VAT);
Postal Zone 1: £37 (no VAT); Zone 2: £39 (no VAT)

RISC OS Ltd

3 Clarendon Road
Cyncoed, Cardiff
Wales CF23 9JD

Tel. 02920 492324
Fax 02920 492326
www.riscos.com
sales@riscos.com

HERE IS THE NEWS...

22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS • Tel 01925 755043 • Fax 01925 757377 • <http://www.rcomp.co.uk/>

Please note - R-Comp prices now include VAT

R
Comp

rcomp@rcomp.co.uk

Web Authoring

HTMLEdit 5 Studio (Whole Suite) £115

Next-generation Web authoring tools for RISC OS

HTMLEdit Studio is the solution to all your Web authoring needs, whether large or small. Available either as a complete suite or piece by piece as a series of components:

HTMLEdit V5 £55

Award-winning HTML editor with many powerful features. V5 includes massively updated support for JavaScript, Cascading Style Sheets and font handling, plus many smaller updates.

Upgrade from v3 or later - £20 & return old (+WDT2) discs.

WebsterXL £30

Fully-featured Web browser, tuned to work with HTMLEdit

Web Designer's Toolkit v2+ £30

Visual editing of frames, tables, animation, image maps etc. Now includes WebThumbs photo gallery creator!

WebSpell (HTML-aware spelling checker) £15

Also Available:

SiteMaster 2+ £35

Site management tools for checking, moving, publishing and uploading whole or partial web sites.

Utilities

EasyClip 2+ £25

Graphical resource management system

Store and manage your clip-art and photograph collections with great ease. *Now includes WebThumbs gallery creator!*

Upgrade from 2.10 or later for £5 by returning disc.

22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS • Tel 01925 755043 • Fax 01925 757377 • <http://www.rcomp.co.uk/>

R
Comp

rcl@rcomp.co.uk

Network Printing/Shared Internet Games

Internet/Print Sharing Box £199

Share your modem/ISDN/cable/ADSL internet, plus a printer too! Includes 4 port, high-speed network hub and cables.

Supplied with Network Printers and NetFetch internet software.

Print-server Box inc Software £155

2(3)-port 10Mbit print server, supplied with Network Printers software: access up to three traditional printers via a network

Network Printers £40

(Software only; includes site licence)

Print to network-enabled printers and print server boxes

Network-in-a-Box

New Product!

Network-in-a-Box gives you all you need to network up RISC OS and Windows computers, and share printers/internet. Containing 2 network cards, cables, the Internet/Print sharing box (above), software and **5 printed, step-by-step manuals** covering both RISC OS and Windows. £299

Internet Utilities

R-Comp Internet Suite £69

First class software to get you online!

Consists of DialUp, Messenger Pro 2 & WebsterXL (described below). Available with a 56k Modem and Account for £115.

Messenger Pro 2 £37

Comprehensive email and news reader software

- Easy to set up and use, yet extremely powerful
- Flexible view options, such as a powerful threading mode
- Offline and Network (£45) versions available.

WebsterXL £30

Browser with support for advanced Web technologies

- Supports frames, tables, JavaScript and 128-bit SSL etc.
- Flexible printing, saving, exporting, cut/paste facilities

DialUp £23

Internet connection utility; supports multiple ISP accounts

NB. £18 to Messenger Pro owners, or £12 if you own WXL

Also Available:

SiteSeer £25

Web site grabbing utility for offline viewing

Messenger Pro 2 New Version!

The leading RISC OS Email system is now easier to use, yet packs in many new features including message deferring, improved threading, "Hotlisting" of links for when you go online and much more. Includes a new 48 page printed manual.

Contact us for upgrade prices and more information . . . £37

Server version for home networks due soon!

Abuse	£25.00
The Chaos Engine	£20.00
Descent 1 & 2 Double Pack	£35.00
Descent 2 for existing owners	£15.00
Doom+ Trilogy	£32.50
Final Doom	£15.00
Heretic and Hexen	£30.00
Heroes of Might and Magic II	£35.00
The Price of Loyalty (for HoMM2)	£22.00
Quake	£23.00
Spheres of Chaos version 2	£15.00
Syndicate+	£29.00
TBA Classics (six-game collection)	£22.00
Krisalis Gold CD	£26.00
RISC User in a Nutshell CD	£32.00

ArteX

Ankh £10.00

Exodus £20.00

Watch this Space!

Confessions of an ADSL user

The announcement by Pipex Internet Ltd. in mid-February that they were dropping the price of their *Xtreme Solo* domestic "Wires-only" ADSL service to £29.32 inc VAT per month with no extra activation fee, persuaded me to log on to their Web site on the Thursday night after the announcement and fill in the online booking form.

I'd been avidly scanning the many forums of the ADSLGuide at bbs.adslguide.org.uk for information on Broadband ISPs, ADSL modems and routers, and what to expect from the "Wires-only" service. With my application to Pipex I ordered a Microfilter, which plugs into the BT master socket and separates the ADSL signal from the telephone voice circuit that shares the same wires to the exchange. It provides one socket for the phone and one for the ADSL modem. This arrived by post on the following Monday morning, together with an invoice to me and a letter for another customer.

I immediately phoned Pipex Sales, who were apologetic and decided to change my password in case my user details which I should have received had been sent to someone else. I then waited patiently for the next few days for the welcome letter and an "activation" date. The address of the phone line to be converted is in the centre of town, so I thought it very unlikely that the line test that BT perform from the exchange would fail. The next day, Tuesday, in anticipation of success, I ordered a Alcatel *SpeedTouch 510* ADSL modem/router with 4-port switch/hub from DSLSource of Coventry at www.dslsource.co.uk

I chose the *SpeedTouch 510* switch/router because I wanted to network a desktop PC (ahem) and a PC laptop and give them both Internet access, and get transparent Internet and file-sharing to an Acorn machine. At this



A deceptively small box for the money

location I normally use an Acorn A4 for writing this column, but networking this machine is not easily achievable.

Apart from the inherent intruder security that its Network Address Translation (NAT) gives, the *SpeedTouch 510* includes a built-in firewall that can be custom-configured using its Command Line Interface. However, this is a formidable task due to the rather unhelpful CLI manual which only lists the commands and their syntax, but not how nor why they should be issued. However, using the default settings and NAT means that the router itself hides from outside view all the computers connected to its switch, and will give a satisfactorily complete list of "Stealth!" reports from Steve Gibson's security-testing *Shields Up!* site at www.grc.com

The *SpeedTouch* was delivered just before the weekend, and breathlessly I unpacked it and plugged it into the microfilter's ADSL socket and switched on. LEDs flashed red and green, and the Line Sync light settled down to a steady green. "Great!" I thought. "I'm connected early." I wasn't. My Pipex username and login refused to elicit any response other than a "Retrying" from the modem. Pipex told me to try the BT test login, which worked perfectly and played a short streaming video as a confirmation that all the hardware was working.

Activation day came and went, so 5 days and 10 phone calls to Pipex Support later, they eventually persuaded BT that the problem was BT's and not Pipex's or mine, and a BT Engineer called today. He connected his laptop, verified that there was a BT problem, and phoned BT's ADSL central command. They admitted that the route settings between my address and Pipex had been missed out, so with a few keystrokes this was corrected, and I am connected.

Wow! To think I could have had this speed a week ago if BT had believed Pipex Support in the first place. I'm just off to check out some broadband Web sites. I may be some time.

Pipex was first in under £30/month

In brief

Take Me Back!

It worries me that so much of our human knowledge resource is now stored only in digital form that requires current-technology readers to retrieve it. The Rosetta Stone, carved in 197 BC with Egyptian hieroglyphics and the Greek script translation is still readable by the human eye 2199 years later. Can we expect our descendants to be able to decipher our unearthed CD-ROMs and RAID disc arrays as easily in the year 4102? The Internet Archive obviously thinks so, for it has been accumulating

Web data donations for the last six years. The result is *The Wayback Machine*, a searchable Internet snapshot library of pages from the World Wide Web going back to 1996. You can re-visit the early days of the Web when surfing was fun and free. There's even a few pages but no pictures from www.acorn.com.

The Wayback Machine

www.archive.org

PeerBoard and Python

Although this sounds like something from *Dungeons and Dragons*, *PeerBoard* utilities allow you to share a clipboard between *RISC OS* computers and *Windows 32 bit* computers, which means the ability to cut-and-paste text between machines over a TCP/IP network. Oh, and it's written by Dietmar Schwertberger in *Python*. Before you ask, *Python* is an interpreted object-oriented programming language that has similarities to *Perl*, *Java* and *Visual Basic*. You can read more about the *Python* interpreter itself at www.python.org.

To run *PeerBoard*, your networked *RISC OS* and *Windows 32 bit* machines must also be running the *Python* interpreter, so this is quite a techie exercise probably not for the faint-hearted! The *RISC OS* port of *Python* and various libraries and additions, as well as *PeerBoard* can be downloaded from Dietmar's Web site, and a "long-filenames" filing system will be required.

PeerBoard and Python

www.schwertberger.dusnet.de/python.html

David Dade
comms@acornuser.com

www.InternetCamerasDirect.co.uk

2.2 MEGAPIXELS



NIKON
Coolpix 775
£270

2.1 MEGAPIXELS



CASIO
QV2900
£298

5.2 MEGAPIXELS



MINOLTA
Dimage 7
£718

3.3 MEGAPIXELS



KONICA
KD300Z
£388

3 MEGAPIXELS



PENTAX
Optio 330
£448

5 MEGAPIXELS



NIKON
Coolpix 5000
£888

1.3 MEGAPIXELS



FUJI
Finepix 1400
£168

4.3 MEGAPIXELS



FUJI
Finepix 4700
£348

2.1 MEGAPIXELS



FUJI
Finepix 2600
£238

2 MEGAPIXELS



FUJI
Finepix 2800
£318

2.0 MEGAPIXELS



FUJI
Finepix 30i
£288

3.3 MEGAPIXELS



FUJI
Finepix 6800
£498

4.3 MEGAPIXELS



FUJI
Finepix 4800
£378

3.3 MEGAPIXELS



FUJI
Finepix 6900
£628



EVERY CUSTOMER GETS
£2 OF DIGITAL PRINTING FREE

EXTENDED WARRANTIES
AVAILABLE FROM £20

FREE QBEQ
PHOTOGENETICS 2.0
WORTH £24.99 WITH
EVERY PURCHASE

WIN 100 DIGITAL
PRINTS IN OUR WEEKLY PRIZE
DRAW- VISIT WEB TO REGISTER

£15 OF DIGITAL
PRINTS WITH ALL
ORDERS OVER £500

COMPARE & CONTRAST
DIGITAL CAMERA
SPECIFICATIONS SIDE BY SIDE

FREE MINI TRIPOD WORTH
£8 WITH EVERY CAMERA

icd²

share & print

NO LENGTHY DOWNLOADS
TO GET STARTED

1 Upload digital images to on-line album.

2 Store, share or order prints.

3 Prints delivered direct to your door.

FREE 50mb on line
photo album storage

FREE registration

FREE £15 worth of
prints with every
purchase over £500



FOR ALL THESE GREAT DEALS AND MORE VISIT OUR WEBSITE

www.InternetCamerasDirect.co.uk

call 0870 745 1036

or fax 01484 845 947 or e-mail sales@internetcamerasdirect.co.uk



*Secure on-line ordering at www.internetcamerasdirect.co.uk we use a 128 bit model to encrypt your credit card details within the browser on your PC. The details are not decrypted until downloaded onto our server. This is the most secure model. We use an encryption standard called Diffie-Hellman, which is a public key algorithm for key exchange, and is widely used on the internet. InternetCamerasDirect.co.uk, 4 Peel Street, Marsden, Huddersfield HD7 6BW

Real-world RISC OS graphics

This month we are taking a break from our series of software reviews to feature some artwork created on RISC OS and some other bits and bobs. I would like to make other people's artwork a regular feature, so if you have any artwork you have created using RISC OS, please send it in to *Acorn User*.

Photodesk hints and tips

Chris Terran has been in touch to promote his new site dedicated to the use of *Photodesk*, which he runs with Lee Montgomerie.

The site offers a range of walk-through tutorials that detail how to achieve various effects using *Photodesk*. In addition, there is a list of links to other useful *Photodesk* Web sites.

The ethos behind the site is to explain

how to achieve effects by way of examples.

The authors point out that the official *Photodesk* manual might be excellent for reference, but it does lack lots of examples to help you along.

Written by users for users, this site should prove very helpful to all but advanced users. You can visit the site at www.nocanews.new.labour.org.uk/chris/index.html.

A tight fit

Now to this month's reader artwork. Tim Hill sent in his design for the Tight Fit Theatre, which many of you may see as you pass through a London tube station sometime soon!

Tim sent the work to *Acorn User* as two RGB JPEGs which he says is exactly

what has gone to their printers. To reproduce them in *Acorn User*, I converted them to CYMK and imported them into *Ovation Pro* as TIFFs. It might be a point of interest to get hold of one of the postcards and compare it against our reproduction here.

Your artwork

Please do send your artwork in to *Acorn User*. Any RISC OS format is fine, although it has to end up as a CMYK TIFF in the end so this is the preferred format. Send your artwork and details of how and why you created it and we'll feature as many as we can on a bi-monthly basis.

We are lucky to have some very powerful graphics programs on RISC OS – let's show everyone what they can do!

TWELFTH NIGHT
by William Shakespeare
adapted by Mark Oldknow

March 5 - 16
Upstairs at the Gatehouse
www.TIGHTFITTHEATRE.co.uk

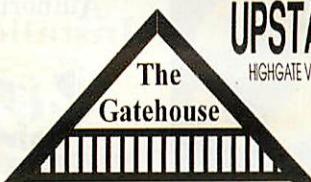
Tim Hill: "Nothing particularly complex. I believe in K.I.S.S. Done with Artworks but it could have been Draw! Photo taken on 1600 ASA film under stage lighting and scanned."

May be of interest as rather than just some random spatter for my own amusement, these are the front and back of real advertising copy of which 10,000 are being printed on A6 300 gsm board (postcards) and dished out at selected London tube stations over the next few weeks."

Michael Stubbs
graphics@acornuser.com

TWELFTH NIGHT

Cross dressing, mistaken identity and seduction interweave with the sounds of the only place in town - Club Illyria. The strains of the torch song burn through the night inviting us into this world of lovers and strangers. A heady mix of summer jazz and lost loves brought to you by The Wycombe Swan's resident theatre company.



UPSTAIRS AT THE GATEHOUSE

HIGHGATE VILLAGE, LONDON N6 (Junction of Hampstead Lane and North Road)

Nearest Tube: Highgate (10 minute walk up Southwood Lane)

Archway Tube (then buses: 143, 210, 271 up Highgate Hill)

214 bus from Camden / Kentish Town

Easy parking after 6.30 pm and all day Sunday

March 2002	Day	Performance	Tickets	Concessions*
5	Tue	8 pm	£10	£8
6	Wed	8 pm	£10	£8
7	Thur	8 pm	£10	£8
8	Fri	8 pm	£12	£10
9	Sat	8 pm	£12	£10
10	Sun	4 pm	£10	£5
12	Tue	8 pm	£10	£8
13	Wed	8 pm	£10	£8
14	Thur	8 pm	£10	£8
15	Fri	8 pm	£12	£10
16	Sat	8 pm	£12	£10

* CONCESSIONS: Students, Young People (under 16 yrs), Senior Citizens, Job Seekers, Registered Disabled, Equity and MU Members.

BOX OFFICE: 020 8340 3488

www.upstairsatthegatehouse.com



Money Manager 2001

The most up-to-date personal accounts package available for RISC OS. Get your finances under control with the help of Money Manager 2001 (Personal Accounts).



Our flagship product. EBMS provide point-of-sale, stock control and customer accounting facilities to the retail market. This is the software behind the POSum EPOS system.



As well as selling the complete range of RiscStation computers we also provide local installation, training and support services.



Nutmeg

Our most popular RISC OS utility, Nutmeg provides caching and site saving facilities for Oregano (THE web browser for RISC OS).

everythingEPOS .co.uk

Visit our everythingEPOS.co.uk website for some great bargains on barcode scanners and other EPOS equipment suitable for use on both RISC OS and PC hardware.

imagesoft.co.uk

Visit our website for the latest news on our RISC OS developments, and a complete catalogue of our software products.



Visit posum.biz for details on our point-of-sale solutions and to locate your nearest reseller.

Image Software
48 Hinchliffe Road
Poole
Dorset
BH15 4ED

01202 269720

sales@imagesoft.co.uk

ITC



ITC, PO Box 101, St. Ives, Cambridgeshire, PE27 3WB.

Voicemail: 0709 2000 590 Fax: 01480 382457

Web: www.itc-uk.co.uk E-Mail: sales@itc-uk.co.uk

All prices exclude carriage and VAT. E&OE.

PART EXCHANGE & REFURBISHING

ITC offer a part exchange scheme on Acorn computer power supply units & motherboards.

We also refurbish Acorn A4 battery packs with Nickel Metal Hydride cells.

We have refurbished A4000's, A5000's, A7000's & RISC PC's computers for sale. Please contact us for specifications and prices.

REPAIRS

Acorn computer repairs from £60.00. *

* Includes BBC B's, Master 128's, A3xxx series, all Archimedes, A4's, A4000's, A5000's, A7000's and RISC PC's.

SPARES

ITC stock the majority of Acorn original spares. Below is a very small example.

Acorn 28.8k Internal Modems (fitting and free PD s/w available on request)	£35.00
Mouse Balls	£2.00
Acorn PS/2 Mice (A7000 / NC)	£15.00
A3010 Keyboards	£20.00
A3020 Keyboards	£20.00
Infra-red Keyboards (PS/2)	£35.00
420Mb IDE Hard Drives	£20.00
850Mb IDE Hard Drives	£28.00
1Gb IDE Hard Drives	£32.00
Floppy Drives (A440 / A310)	£20.00
Floppy Drives (A400/1 / A540 / A3000)	£20.00
A3000 Power Supply Units	£25.00
A4000 PSU's (Refurbished)	£50.00
A5000 Power Supply Units	£35.00
A7000 Power Supply Units	£65.00
RISC PC Power Supply Units	£65.00
RISC PC 2 Way Backplanes	£25.00
RISC PC 4 Way Backplanes	£35.00
8Mb EDO DRAM (A7000+ / NC)	£5.00
CMOS Batteries (all except A3000)	£3.00
Acorn RISC PC DX4-100S PC Cards	£30.00
A4 Keyboards	£10.00
A4 LCD Screens	£25.00
A4 Floppy Drives	£20.00
A4 Mains / Charger Units	£40.00
A4 Backlight Assemblies	£15.00

The joys of DigiFlash

I have recently been experimenting with digital photography. My brother bought me a cheap digital camera (a Fujifilm DX-5) for Christmas a few years ago, and I have been really enjoying looking at my pictures online. I had been using a 'Windoze' PC with the Fujifilm software (and cables), and as I'm transferring the pictures onto a Zip drive for eventual use on my RiscPC/A7000+, I wanted to eliminate the PC from the equation.

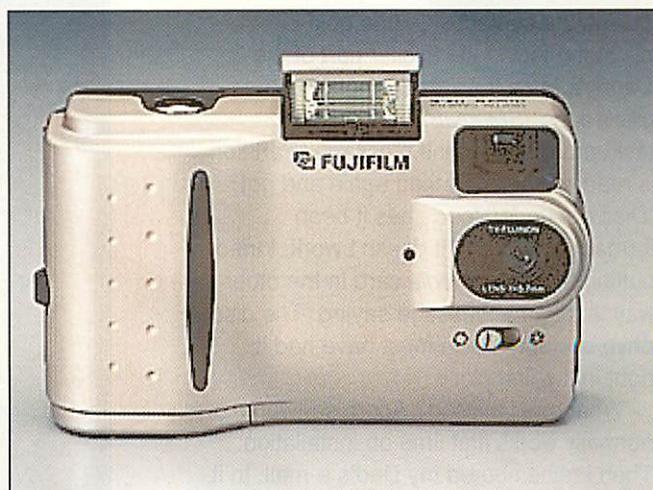
I was lucky enough to see the very recently completed *SmartMedia DigiFlash* software in action at Surftec's stand at *RISC OS 2001* at Bracknell. Surftec produce software for two media readers for Acorn hardware, both called *DigiFlash*. One deals with *SmartMedia* (little wafer thin cards with a chunk snipped from the corner) and the other with *CompactFlash* cards (these are chunkier - about the thickness of thin corrugated cardboard packaging). The latter Surftec hardware can also be used with the IBM *Microdrive* - so 1GB of data could potentially be held on one card! I purchased the *SmartMedia* version of *DigiFlash*, and that's the hardware I'll be reviewing.

Just before Christmas I received a large box (about 5 inches by 5 inches by 8 inches) which I knew to be my Christmas present from my folks. I had to fight back the temptation to open the box before Christmas! My father had

previously forwarded me an e-mail he'd received from Surftec's Neil Farnham-Smith (who also writes for *Acorn User*) detailing how to set up the *DigiFlash SmartMedia* card reader. This mentioned something about an *INFO* file and setting this to type &000.

On Christmas Day, I eagerly opened the package to find a jiffy bag containing my new 16MB *SmartMedia* card (I'd found out before that the card reader would not work with my camera's supplied 2MB card), and a well cushioned *Camera Mate* hardware attachment in its PC packaging - complete with PC CD-ROMs should you wish to install on a PC (which I didn't).

The business end of the *Camera Mate* hardware consists of a U-shaped card reader with a slot for entering the *SmartMedia* card. Some electronics are visible through its smoked perspex cover. At the other end of the cable are connectors for the printer and keyboard ports. These ports have flying leads attached so that you can connect your printer and keyboard to pass through these (see schematic drawing). The keyboard connector is the fairly standard PS/2 style - though some PCs have 5 Din



The Fuji works with DigiFlash

ports (like old tape recorders) - I think all modern Acorn hardware has this kind of port. This gadget is probably unlikely to work on A3000, A3010 or A3020 series machines, as the keyboards are combined with the computer itself. Apparently the unit derives its power from the keyboard so needs no mains socket.

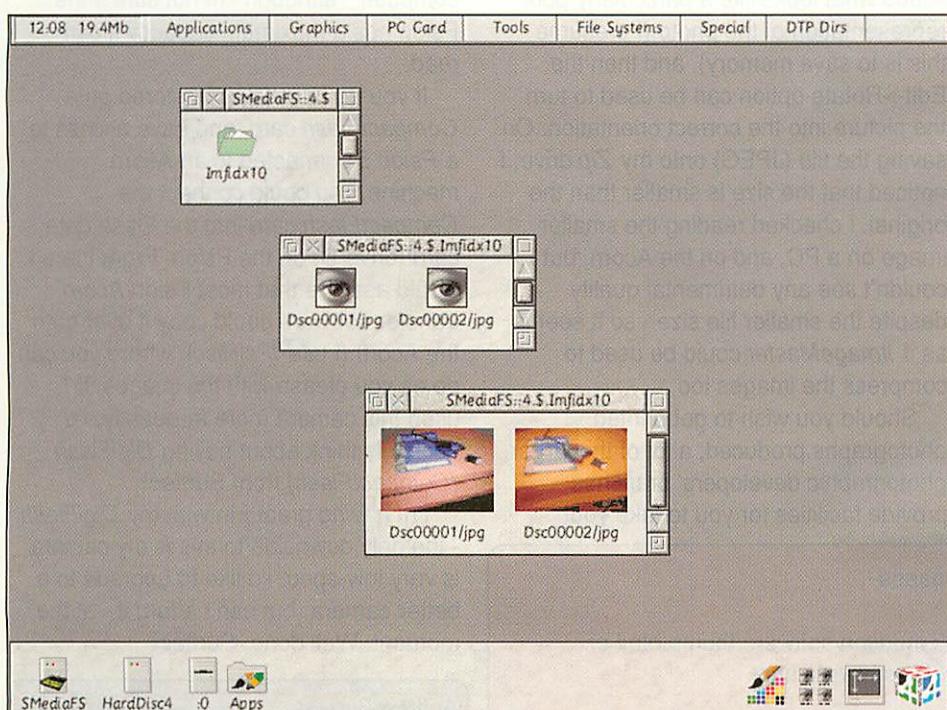
Also included was a very friendly, well presented little user guide - something PC hardware seldom has nowadays.

The hardware was simplicity itself to install. Remove the printer port from the back of the Acorn, and plug it into the flying lead from the new gadget, and plug that port into the Acorn. Then remove the keyboard connector and plug that into the keyboard flying lead, and then the new keyboard connector into the back of the Acorn.

I switched on the Acorn, and to my joy everything I'd added to still worked. The Zip drive responded (connected via printer port and a switch box), and there were no problems with the keyboard.

I then proceeded to copy the contents of the floppy disc supplied onto my hard disc (how amazing to have everything on one floppy - most PC software comes on a hard-to-install CD and always requires a reboot). The user guide even goes so far as to help one to install *!SMediaFS* into your boot sequence. I ran *!SMediaFS* from the *RISC OS 3*-style disc icon. It installed a *RISC OS 4*-style hard disc icon with a *SmartMedia* card overlaid. This looks great under *RISC OS 4*, but a little out of place on *RISC OS 3*. Nevertheless this doesn't distract from the functioning of the software.

It was now I hit my first problem. I didn't know which way to insert my



SmartMediaFS in action on a RISC OS 4 RiscPC

SmartMedia cartridge - there's no indication on the *Camera Mate* as to which way it should go in. I plumped for putting the contact side (the gold contacts) facing the thicker part of the *Camera Mate* towards the bottom. I clicked the *!SMediaFS* icon on my taskbar. I received the message "Partition is read protected". I tried again and got "Disc not understood - has it been formatted?". Great! It doesn't work. I tried putting the *SmartMedia* card in the other way, and got a message saying "The disc drive is empty" - so I must have had it right in the first place.

What had I missed? Acorn software normally works first time on installation. Then I remembered my Dad's e-mail. In it Neil Farnham-Smith had mentioned 'an attachment'. Nowhere in the mail could I find an attachment. I asked my Dad to resend it, and he forgot!

However, as he was 300 miles away in Newcastle, I thought I'd have a look when I was up for New Year. I fought my way through his Microsoft *Outlook Express* e-mail software, found this e-mail (complete with the attachment) and immediately forwarded myself a copy. I checked what it was prepared to send - and lo and behold - no attachment. I eventually worked out how it could send the mail and the attachment, and sent it.

Returning back home, I picked up the e-mail (and the attachment), copied it into the *!SMediaFS* application folder, set the type to &000, and restarted *!SMediaFS*. The hourglass appeared, and after a short space of time it was ready to go.

I put my card into the reader, and clicked *!SMediaFS* on the taskbar. A filer window appeared with a folder. I clicked on this, and wonder of wonders all my pictures appeared in their native names i.e. DSC00xxx/JPG. I could now click on these, and *!ChangeFS* loaded them up when I double clicked on a picture.

I then didn't use *!SMediaFS* for a while - returning to use it mid-January. Horror! I got the "Partition is Read Protected" error again. I contacted Neil Farnham-Smith, and he directed me to the Support area of Surftec's Web site (www.surftec.com). On that I found what I'd been looking for - the latest update to *!SMediaFS*, version 2 to download - and the information that



The Surftec bundle

version 1 had now been disabled, hence the reason for my error.

I installed version 2, and could see my photos again. It's great to be able to download my photos direct from the camera card without resorting to using the Evil Empire's software.

I use *!Thump* to give me thumbnail views of the pictures direct from the camera. I can then double-click the pictures to see full screen images. Unfortunately *!Thump* doesn't translate pictures taken in the wrong orientation (eg Portrait to Landscape or vice versa), so to do this I use David Pilling's scanning and manipulation software (formerly known as *ImageMaster*). This loads what looks like a particularly poor representation of the photo (I presume this is to save memory), and then the Edit->Rotate option can be used to turn the picture into the correct orientation. On saving the file (JPEG) onto my *Zip* drive, I noticed that the size is smaller than the original. I checked reading the smaller image on a PC, and on the Acorn, but I couldn't see any detrimental quality despite the smaller file size - so it seems as if *!ImageMaster* could be used to compress the images too.

Should you wish to get printed photographs produced, a lot of the larger photographic developers' branches provide facilities for you to take your

floppy disc, *Zip* drive and other media to get made into photos. Also Internet Cameras Direct (see adverts in *Acorn User*) provide a prints (by post) from digital images service (you have to upload your pictures). A word of warning, though, if you have a low-resolution camera (mine is 640x480 and 0.35 megapixels) then the photographs can look a bit 'blocky'.

I have occasional access to a high-quality Nikon *CoolPix* (*CompactFlash*) camera and have been using that with the cables through a PC - until the cable stopped working. I eventually found out (after transferring via a PC) that the card could have been read by my *Psion 5* computer - although I'm not sure if the *Psion* has a maximum capacity it can read.

If you do have images stored on a *CompactFlash* card, and have access to a *Psion 5* connected to an Acorn machine, you could connect the *CompactFlash* card into the Flash data card (drive D) on the *Psion*. From there I would assume that most *Psion/Acorn* transfer software could copy it over onto the Acorn (I use *!PsiRisc*), where you can do as you please with the images. If I used this camera more frequently, I'd definitely think about buying *DigiFlash* (*CompactFlash*) from Surftec!

I'm having great fun with my *DigiFlash* - the only downside to this is my camera is very low-spec. I'd like to upgrade to a better camera, but can't afford it - at the moment. Well done, Surftec!

Web addresses

Thump:	hammer.prohosting.com/~rhudson/software/thump.html or www.actrix.gen.nz/users/rick/software.html
Surftec:	www.surftec.net
Scanner software:	www.davidpilling.net

Andrew Burgess
ajburgess@argonet.co.uk

WIN a copy of Ovation Pro



Acorn User is now produced using Ovation Pro, the professional desktop publishing system for RISC OS.

For a chance of winning a copy, answering the following simple question:

What archive formats can SparkPlug unpack?

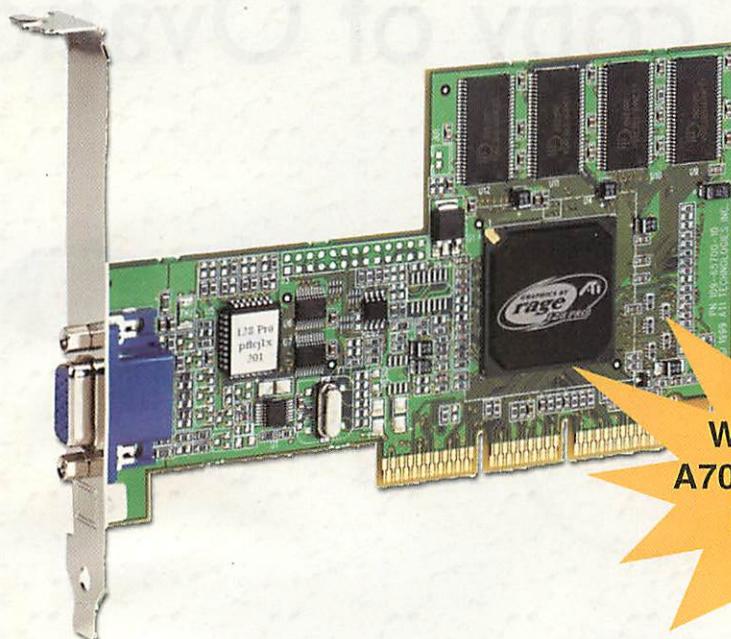
The answer can be found at www.davidpilling.net

Send your answer on a postcard marked Acorn User April Competition to:

Tau Press Ltd, 28a Middle Hillgate, Stockport, SK1 3AY. United Kingdom.

Entries should be in by 14/04/2002

Step into the future



With the ViewFinder graphics card from Windfall Engineering, your computing experience will be transformed. With graphics acceleration and high specification screen modes capable of driving the latest monitors to the limit, ViewFinder is the future of Acorn Risc PC graphics.

Incorporating the popular ATi Xpert 2000 Pro AGP graphics card, ViewFinder gives you graphics capabilities never before seen on the Risc PC. With a massive 32 megabytes of video RAM, ViewFinder removes the limitations of the Risc PC's video system, offering higher resolutions, more colours and a flicker free display for the ultimate high-productivity environment.

See the difference ViewFinder makes :

Colours	Standard Risc PC	ViewFinder (examples)
16 million	800 x 600 @ 60 Hz	2048 x 1536 @ 67 Hz, 1920 x 1440 @ 74 Hz, 1600 x 1200 @ 91 Hz
32 thousand	1024 x 768 @ 75 Hz	2048 x 1536 @ 72 Hz, 1920 x 1440 @ 76 Hz, 1600 x 1200 @ 91 Hz
256	1280 x 1024 @ 80 Hz	2048 x 1536 @ 72 Hz, 1920 x 1440 @ 76 Hz, 1600 x 1200 @ 91 Hz

ViewFinder is available direct from Windfall Engineering, or contact your preferred RISC OS dealer. For further information and technical specifications, please visit the Windfall Engineering web site.

**Windfall
Engineering**

www.windfall.nl

The fastest 56MHz computers on the 'Net

We had been hoping to bring you a review of a Microdigital *Mico* Internet machine this month, but unfortunately we were unable to secure a machine to review. David Atkins has expressed the wish that Microdigital be left out of this particular review, so it's now a straight contest between Castle Technology and RiscStation.

Before I delve into the pros and cons of each machine, here is a brief reminder of the purpose of this series. Over the past year-and-a-half, the announcement of the *Omega* has shifted all focus firmly on high-end machines and what the future will bring. As a direct consequence of this, many have perceived even *StrongARM RiscPCs* as being slow and out-of-date and the 56MHz machines as being totally unsuitable for any serious modern-day computer user.

There is a group of *RISC OS* users who are still managing on *A5000* machines (or even older) who really do need to upgrade for one reason or another. Perhaps they would like to use the Internet (anything less than a first-generation *RiscPC* simply won't cut the mustard here), or try their hand at some desktop publishing. Due to either cost or a perception of current hardware set to be superseded at any point (or perhaps both), these users are holding out from purchasing a new computer and struggling along with their *Archimedes* computers.

Another group of users in similar circumstances are schools. Many schools plod on with their suites of *Archimedes* machines and then compare 'slow Acorns' with modern 'fast' PCs. They can't afford lots of new *RiscPCs*, or think it would be money wasted.

The solution to both groups lies in the 56MHz computers. Despite what the MHz rating suggests, these computers are surprisingly capable machines. They'll deal with the Internet just fine and are powerful enough for desktop publishing and other general home or school use. For the user that wants a cheap *RISC OS* solution for general use, these machines are the perfect solution.

Of course, they will be superseded and there are already faster solutions in the form of the *StrongARM* and *Kinetic* range of *RiscPCs*. But an interesting point to consider is that when faster hardware appears using faster processors, it will be running a pure 32bit

version of *RISC OS*. This will render many applications unusable as they will be designed to run on the current, so-called 26bit version of *RISC OS* and thus fail on any 32bit version. Buying a modern machine now means that when you get to buy a new, super-duper 32bit *RISC OS* computer, you will have a fast and capable 26bit machine to run your old software on (that which doesn't get ported to 32bit *RISC OS*).

The final point to note is that one has to remember that we are in *RISC OS* land here. 56MHz in *RISC OS* land is not comparable to 56MHz in the *Windows* world. The efficiency of *RISC OS*, the ARM RISC chips it runs on and of course the well-written software we use on it means that everything goes a lot faster than it would if it were a CISC (eg. *Windows*) system. That is why in this series, I have avoided numbers and instead concentrated on real-world performance. What was the machine like to use? Was it responsive? Was it reliable?

For this series, the manufacturers were asked to build machines specifically for Internet use. The machines were to be Internet-ready out of the box, with no need for extra hardware or software. Furthermore, it was specified that a 15" LCD display should be included in order to provide a flicker-free display. Again, the machine was to be preconfigured so that the display could simply be attached and the computer turned on. Apart from these necessary requirements, the manufacturers had a free reign on cost and features.

Now that the two separate reviews are complete, I will take a look at the pros and cons of each machine.

Castle's *A7000+ Odyssey Internet* machine was the first to go under the spotlight. It was very well packaged and everything was there that I had specified. When the delivery man left, I was left with a huge box standing in the living room. A little investigation revealed that inside were two more boxes, one containing the computer and the other containing the LCD display. The huge box was full of polystyrene to protect the two inner boxes and inside those was packaging to protect the actual contents.

This was very impressive and showed that Castle take great care in making sure your goods are as safe as possible as they get shipped across the kingdom to

your front door.

The RiscStation system unfortunately needed two deliveries, as RiscStation had forgotten to include the modem, manual and the LCD display. That was not the best start to a review of an Internet computer, but everything was exceptionally well-packaged, offering maximum protection to the goods whilst in transit.

The *A7000+* case is very small and very attractive - definitely a good choice where room is limited or you want your computer to be a stylish addition to your desk. The LCD display sat neatly on top of the *A7000+* and the minimal modem tucked away nicely. A very attractive addition to any desk

The RiscStation machine uses a standard ATX case which, whilst rather much duller and PC-like, offers the distinct advantage of expandability. Indeed, the RiscStation machine came with a CD-RW and a Zip drive, as well as the standard floppy drive. The *A7000+* had room for just a CD-ROM drive and a floppy drive. The RiscStation could come in a Midi or full-tower ATX case, offering room for more drives, whereas the *A7000+* is severely limited in expandability. The RiscStation is definitely better off under the desk rather than on it - it is no eye-catcher and is rather too big to have on your desk anyway.

Having setup the *A7000+*, it faced its first real test. Would it actually turn on (occasionally a computer can be DOA - Dead On Arrival - and just not work at all) and would it be configured correctly? The computer turned on fine and had indeed been configured for use with the LCD panel. So far so good, the display was set at 800 x 600 with 32,000 colours but looked much better at 1024 x 768 with 256 colours. 15" LCD display normally have an optimal resolution of 1024 x 768 and you always get a much better picture when you run at an LCDs optimal resolution.

When it came to turning on the RiscStation machine, I was disappointed to find that it had not been configured for use with the supplied LCD display. I was even more disappointed that when I got asked for a monitor definition file, I instead had to delve inside !Boot and alter a file in a text editor. Fine for me, but perhaps not so good for someone who is *RISC OS*/computer-illiterate. Support was

prompt, however, and RiscStation assured me that a machine supplied to a customer would be configured correctly.

Further conversation with Roy at RiscStation revealed that the machine I got was actually their demonstration machine (due to the Christmas rush). He pointed out that RiscStation machines get packed in branded RiscStation packaging (similar to the Castle method) and of course arrive fully configured.

One of my pet hates about Acorn machines is the operating noise, which appears to be down to the power supplies. The A7000+ was no exception, offering a high-pitched background noise - it doesn't bother me, but my housemate commented on it immediately.

The RiscStation machine, on the other hand, was almost totally silent. I can honestly say I've never come across a computer that was so quiet before. This is very good for working in quiet environments - machine noise in an office with other machines on goes unnoticed, but in a quiet study or bedroom, silence is appreciated!

The RiscStation motherboard is a new design and so has a faster bus than the A7000+, meaning data passes much more quickly around the system. This translates to more responsive operation, with loading and saving being faster, too. The A7000+ was not far behind and is certainly still a very capable machine.

The software supplied with the machines brought mixed results. The A7000+ came with *Oregano*, without doubt the best *RISC OS* browser at this present time. The RiscStation machine, on the other hand, was supplied with *WebsterXL*, which whilst quite nice, is certainly noticeably slower and less capable than *Oregano* at rendering Web sites.

Castle supply the freeware version of *Messenger*, whilst RiscStation supply the full commercial version. So, Castle have the better Web browser, but RiscStation have the better e-mail client. Will one of the companies change their bundle and provide the best of both worlds? Whoever does will gain the upper-hand...

The Castle machine lets you actually signup to a Freeserve account or just dial straight into the Internet with BT Click. Castle have opted to supply *Socketeer*, which is a nice piece of software, but doesn't offer the compatibility and ultra ease-of-use that *DialUp* does, which is what is supplied with the RiscStation machine. Put simply, *DialUp* is brilliant. It accepts .ins files, supplied for *Windows*

users by ISPs and seems to work with just about any ISP.

Unfortunately, there was no way to actually signup with an account using the RiscStation machine. This means having to get your dealer or RiscStation to set one up for you, or indeed setting one up on another computer.

Again, then, we have a situation where neither machine outshines the other. What would be prudent would be for a machine to be supplied with *DialUp*, but with the facility to signup for an account.

The A7000+ gains an edge over the RiscStation for actual Internet software due to providing the better browser and the ability to actually signup for an account from scratch. The RiscStation, however, offers faster hardware, very quiet operation and a good software bundle, basically let down by the browser and lack of signing up ability.

Late breaking news on the software front is that RiscStation supply a pretty impressive software bundle for non-Internet use that includes: *Easiwriter Pro*, *Fireworkz*, *Pipedream 4.5*, *Rhapsody 2*, *OHP*, *DrawWorks* and 2,100 fonts. This is information I did not actually have when I was originally reviewing the machine. For general use, then, the RiscStation comes with a lot of very good software - software that would normally cost a considerable amount to purchase separately.

If you want faster hardware, the RiscStation is the clear winner. With built-in networking, too, it's ideal for schools or those with another computer already. If getting connected for the first time is your reason for buying, then the Castle machine has the edge here, with *Oregano* providing the better browsing experience, too.

We'll leave the decision on price and features to you. In both cases, it is likely you will want to add some commercial software (such as *Messenger Pro* on the Castle machine and *Oregano* on the RiscStation) so this must be taken into account. As it stands, both machines have clear advantages over each other and it is really down to what you want from the machine that will effect your choice.

But we can't round off a series of reviews without mentioning prices - I deliberately left prices out of the initial reviews so that we could supply you with fair and accurate pricing now (computer prices fluctuate daily).

The A7000+ has a RRP of £599 excluding delivery and VAT (£703.83

including VAT but not delivery). If you want the LCD display, the whole system weighs in at £898 excluding VAT and delivery (£1055.15 including VAT but not delivery).

RiscStation explained to me that the machine I had was actually a *Scorcher* machine with the *InSite* Internet pack and 15" LCD monitor added. Without the LCD monitor, the RiscStation Internet machine costs £836 excluding VAT and delivery (£928.30 including VAT but excluding delivery). If you would also like the 15" LCD, the whole system will cost £1106 excluding VAT and delivery (and £1299.55 including VAT but again not delivery).

For the next month only, the *Zip* drive will be 17.5% cheaper with a system, so the price will be slightly lower than this.

In the end, the RiscStation comes out more expensive but you are getting a 250Mb *Zip* drive and a CD-RW thrown in for this. There is also the rather extensive and useful software bundle to consider.

The A7000+ *Odyssey Internet* comes with a good software bundle and has the better overall set of Internet applications. It is by no means a slow machine, although the RiscStation is undeniably a faster machine.

Conclusion

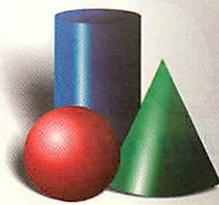
So who's the winner? Speed, expandability and a very good software bundle points to the RiscStation as the winner. However, you can't signup for an Internet account from scratch with the RiscStation machine. It also ships a not-so-capable browser. Castle, on the other hand, counter these two failings very successfully.

This amounts to the conclusion that both machines are winners, depending on what you want. A new user wanting to signup for an Internet account or someone who doesn't want to pay extra for a better browser would be better off with the A7000+ *Internet Odyssey*.

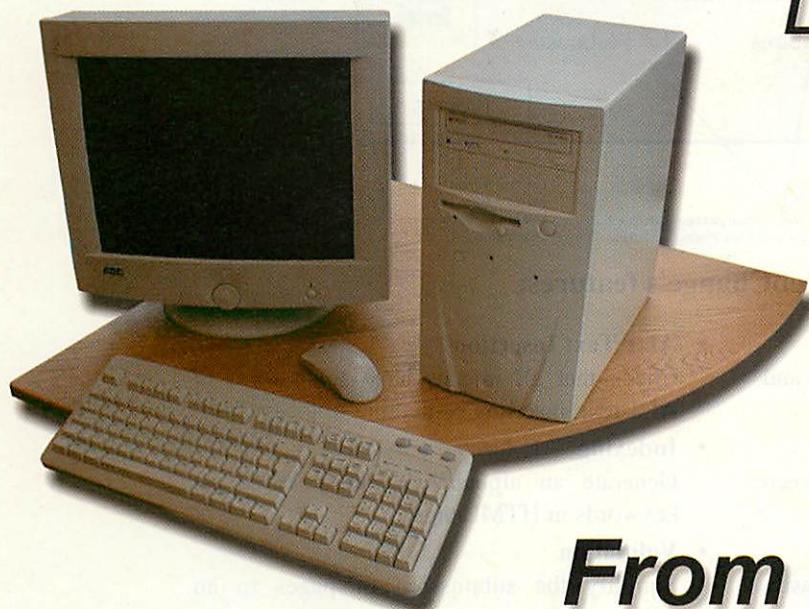
On the other hand, those who will be using these machines for a lot of other general tasks would benefit from RiscStation's superior general software bundle and faster hardware.

Both machines have their strengths and weaknesses. Hopefully by following this series, you can identify your needs and make the right choice. Do write in and tell us if you buy a machine and how you have found it in use.

Michael Stubbs
editor@acornuser.com



MEGA HOT DEALS



Limited Acorn User Offers

AU-R7500 Plus and Scorcher Deals

FREE UPGRADE to 20Gb Hard Disk
FREE UPGRADE to 128Mb Fast Memory
FREE Optical OR Wireless Scroll Mouse

AU-R7500 Lite Deals

FREE UPGRADE to 10Gb Hard Disk
FREE UPGRADE to 32Mb Fast Memory
FREE Optical OR Wireless Scroll Mouse

From ONLY £499 + VAT

The **NEW** RiscStation Portable RISC OS Computer



Estimated
shipping
end of April

Prices from
£999 + vat

64 Mhz ARM7500FPE Processor
(with floating point co-processor)
RISC OS 4 Operating System
64Mb 50ns System Memory
10Gb 2.5" EIDE Hard Drive
Luxury Magnesium Alloy Casing
8.4" TFT Touchscreen Display
Concealed Heavyweight Metal Pen
77 Key Quality Black Keyboard
2 Button Glidepoint Touchpad
Built-In Stereo Speakers
Internal Hands Free Microphone
16Bit Sound Sampler & Mixer

1 x 3.5mm Mic In Jack Socket
1 x 3.5mm Headphone & Speaker Out
2 x USB Connections
1 x Mini Serial Connector
1 x Mini Midi Port
1 x 10/100base Network Port
1 x 15Pin VGA Connector
1 x SVHS TV Output
1 x PCMCIA Slot
1 x IRDA Infrared Transceiver
1 x 20v DC Power Connection
1 x Docking Station Connection Port
Mains Power Supply Included
Software Bundle (to be announced)

Have you got your deposit down yet?

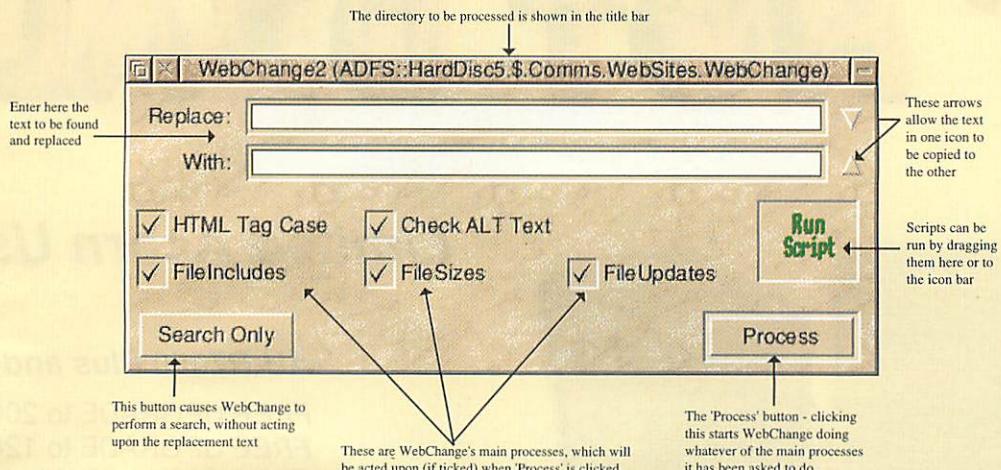


WebChange

The website maintainer's tool

WebChange is an application designed to help with the maintenance of websites, and is particularly suitable for those who prefer to modify their HTML by hand in a text editor, giving them full control of the HTML itself, rather than just the layout and content.

The software provides the user with a number of functions designed to simplify those tasks which might otherwise be repetitive in nature, such as changing a simple item of text on every page - but that very simple example is merely the tip of the iceberg.



Some of WebChange's features:

- **Search and Replace**

Replace the same piece of text on each and every page of a site on which it appears.

- **Tag Case Conversion**

Change the case of all HTML tags between upper and lower case at will.

- **Newline Conversion**

Change newline codes quickly and easily between the formats used on different platforms.

- **File Date References**

Check the datestamps of specified files, insert them into web pages, to show when they were last updated.

- **File Size References**

Insert the sizes of specified files into web pages, to show visitors the size of files they may wish to download.

- **File Inclusion**

Maintain a consistent look and feel across a site by keeping recurring HTML in separate files, to be inserted when updated.

- **ALT Text Insertion**

Check that all images have some form of ALT text, inserting something if not.

- **Indexing**

Generate an alphabetical index based on keywords in HTML tags.

- **Validation**

Simplify the submission of pages to an online validator by generating a file containing a link for each page.

- **Filename Case Conversion**

Change the case of all filenames from between UPPER, lower and Proper case, quickly and easily.

- **Filename Extensions**

Change the extensions of filenames between long (.html, .jpeg), short (.htm, .jpg) or none at all.

- **Script Language**

Use WebChange's script language, to carry out any number of its built in functions on the local copy of a site, one after another.

SPECIAL OFFER

(To coincide with the launch of the new WebChange website, at <http://www.webchange.co.uk>)

WebChange for RISC OS can be purchased for £12.00

(Offer valid until 30th April 2002, normal price £15.00)

To order, simply send a cheque or postal order for the above amount to:

Soft Rock Software, 124 Marissal Road, Henbury, Bristol, BS10 7NP

(Please provide a valid email address - the software is normally supplied as a download from a password protected website, to which you will be sent access details by email)

For more details about WebChange, please see the website at <http://www.webchange.co.uk>

Acorn User exclusive: TEK 1608 graphics artist on how the TEK world was created

After over four years hard work by a dedicated team of graphics artists, AI programmers, and programmers, Artex's latest games release - *TEK 1608* - is nearly here. For those who haven't heard of it, *TEK* is a home-grown, real-time strategy wargame, a bit like *Command and Conquer* on the PC. The game is set in the near future, after a nuclear war, and centres around two corporations who are both attempting to gain global control over the production of a vital drug called SHOQ, using all means possible.

From the gameplay point of view, the action focuses on the player directing their battle units across a 3D landscape in an attempt to achieve their objectives for the current mission. Of course, the opposing corporation have their own idea about what you, the player, can or can't do and there's a good deal of mayhem to be had before anyone finally comes out on top. Battle units increase in diversity as the game progresses. While at the start you may have only a handful of troopers and perhaps a jeep, it won't be long before you're commanding an army of helicopters, tanks, fighter aircraft and more. If you're good enough to survive, that is.

Unfortunately, since at the time of writing the finishing touches are still being added to the game, I can't give you a review (impartiality aside). Instead, what I hope to do in this article is provide an overview of how the *TEK* world was created, from the perspective of my role as a graphics artist. It should be noted that some of the images are mock-ups produced in *Compo*, but they shouldn't differ too much for what you see in the game.

One of the first tasks that I undertook when I got involved with *TEK* was the design of the buildings. Initial discussions with Jan Klose gave me an idea as to what type of buildings were required - for example an HQ and a repair station. However, I was fortunate to have a reasonably free reign when it came to their appearance. From the outset, I wanted to create a set of buildings that shared a common, clean and slightly futuristic look (fig I). I also wanted to try to make the graphics in *TEK* look as good as those of strategy games on other platforms, wherever possible.

As with most 3D design, the easiest place to start is simply to grab a pencil and paper and sketch various ideas using the world around you for inspiration. It

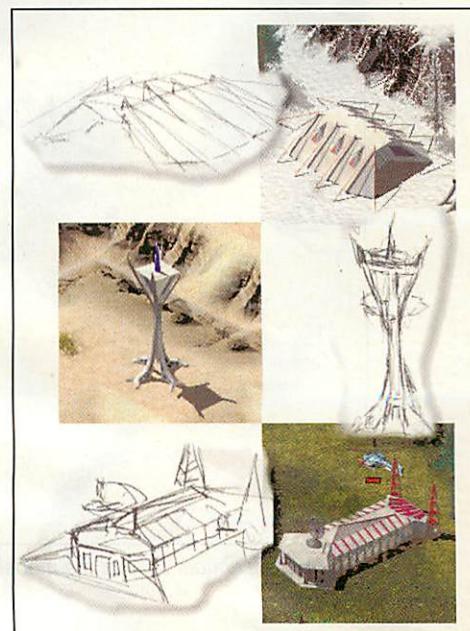


Fig II: sketches of prototypes

doesn't matter how good an artist you are, just as long as the sketch catches the elements of the design you're trying to create. I'm certainly no wiz at drawing, as you can tell from the sketches of my prototypes (fig II). However, as you start to come up with some good ideas, try to refine them and then simplify some of the more promising designs so that you come up with something that can be modelled in a reasonable amount of time, using the tools you have available.

Inspiration for some of the *TEK* buildings came from as bizarre sources as a water tower and a tent. Nevertheless, it was also important to remember what the function of each building was, since despite your desire to innovate most people have an expectation as to what certain types of building look like. Get this wrong and you may find that the player becomes confused in the heat of the action - which will in turn put them off the game. Reference material is also really important - don't do what I did and research what a jeep actually looks like only after finishing off a design for a unit (which was then scrapped)!

Examples of visual clues I included with the buildings to help identify their function were the chimneys on



Fig I: Futuristic buildings



Fig III: blast craters around the models

the factory and the tarmac areas in the case of the repair base.

Modelling of the buildings (and those battle units I was responsible for) was done in *TopModel* on my *RiscPC*. Each design was broken down into sections that were easy to model and then these sections were put together to create the final model. Since the units were going to be rendered at a relatively low resolution, I tried to concentrate on getting the overall appearance of the buildings right, rather than adding lots of minute detail that would never be seen.

One of the most difficult of all the

graphical tasks was the creation of the destroyed buildings. However, it was one area that I was determined to crack, since the player's buildings could hardly just disappear, once destroyed. In the end, I found the best solution to this problem was to take the original model and replace sections, like walls, with jagged and extruded pieces. Other parts of the models were either distorted using *TopModel's* deformation tools, removed completely, or rotated to look like they had been blasted out of their original position. Texturing these models was quite difficult, and involved the use of

textures from a stressed texture library I had recently purchased. I also ended up adding 'blast craters' around the models so that they would look more natural when placed in the landscape. Hopefully the results look convincing (fig III).

While I used my Acorn for a lot of the graphics work, I didn't hesitate to use my PC whenever I felt I could do the job faster using a PC-based application. For example, all the models were rendered using *Bryce* on the PC, since this is one area in which *RISC OS* hardware (and hence the software) simply can't compete. This threw up its own difficulties



Fig IV: Bryce was used to create TEK's rivers



Mice

Logitech Optical Mice	exc VAT	inc VAT
Wheel Mouse Optical PS2/USB	27.00	31.72
Wheel Mouse Optical with STD PS2 Adapter	39.00	45.82
MouseMan Wheel Optical PS2/USB	42.00	49.35
MouseMan Wheel Optical with STD PS2 Adapter	54.00	63.45
Pilot Wheel Mouse Optical PS2/USB	18.00	21.15
Pilot Wheel Mouse Optical with STD PS2 Adapter	30.00	35.25



Cordless Optical Mouse



Cordless MouseMan



Pilot Wheel Mouse Optical

Logitech Corded Mice

Logitech Corded Mice	exc VAT	inc VAT
Mini Wheel Mouse PS2/USB	17.00	19.97
Mini Wheel Mouse with STD PS2 Adapter	29.00	34.07
Pilot Wheel Mouse PS2/USB	17.00	19.97
Pilot Wheel Mouse with STD PS2 Adaptor	29.00	34.07

Logitech Cordless Mice

Logitech Cordless Mice	exc VAT	inc VAT
Cordless Wheel Mouse PS2/USB	28.00	32.90
Cordless Wheel Mouse with STD PS2 Adaptor	40.00	47.00
Cordless MouseMan PS2/USB	46.00	54.05
Cordless MouseMan with STD PS2 Adaptor	58.00	68.15
Cordless TrackMan PS2/USB	39.00	45.82
Cordless TrackMan with STD PS2 Adaptor	51.00	59.92

Logitech Cordless Optical Mice

Logitech Cordless Optical Mice	exc VAT	inc VAT
Cordless Optical Mouse PS2/USB *NEW*	38.00	44.65
Cordless Optical Mouse with STD PS2 Adaptor *NEW*	50.00	58.75



DigiFlash

DigiFlash Card Readers

DigiFlash Card Readers	exc VAT	inc VAT
CompactFlash Parallel Reader with RISC OS Drivers	79.00	92.82
SmartMedia Parallel Reader with RISC OS Drivers	79.00	92.82
+ Add Photodesk's PhotoShow Software	20.00	23.50
+ Add Warm Silence Software Win95FS Software	25.00	29.37



Media

SmartMedia Media

SmartMedia Media	exc VAT	inc VAT
8MB	8.40	9.87
16MB	10.80	12.69
32MB	16.20	19.03
64MB	27.60	32.43
128MB	63.60	74.73

CompactFlash Media

CompactFlash Media	exc VAT	inc VAT
8MB	15.60	18.33
16MB	18.00	21.15
32MB	19.80	23.26
64MB	31.20	36.66
128MB	50.40	59.22
256MB	110.40	129.72
340MB IBM MicroDrive	160.85	189.00
1GB IBM MicroDrive	288.51	339.00

Tel: +44 (0)1428 608121 • Fax: +44 (0)1428 608123 • E-Mail: sales@surftec.com • WWW: http://www.surftec.com

Sales Hotline: 01428 608121

Surftec Ltd • Burma Cottage • Glen Road • Beacon Hill • Hindhead • Surrey • GU26 6QE • UK

Prices are correct at time of going to press and are subject to change without notice. E&OE. © Surftec Ltd, 2002 - Surftec is a trading name of Surftec Ltd. Carriage will be charged on all orders under £70, or for items weighing over 2kg. Typical carriage charge is £3 for small items (less than 2kg), 75p per kg thereafter.

EPSON Printers

Epson Inkjet Printers

	exc VAT	inc VAT
Stylus Colour C20SX (720dpi)	50.21	59.00
Stylus Colour C40SX (1440dpi)	58.72	69.00
Stylus Colour C60 (2880dpi)	75.74	89.00
Stylus Colour C70 (2880dpi)	118.30	139.00
Stylus Colour C80 (2880dpi)	143.83	169.00
Stylus Colour 1160 A3+ (1440dpi)	220.43	259.00
Stylus Colour 1520 A2 (1440dpi)	425.00	499.37
Stylus Photo B10 (2880dpi)	101.28	119.00
Stylus Photo B90 (2880dpi)	143.83	169.00
Stylus Photo B95 (2880dpi) - With Print Image Matching	152.34	179.00
Stylus Photo 1290 A3+ (2880dpi)	297.02	331.50

Epson Colour Laser Printers

	exc VAT	inc VAT
AcuLaser C1000 (5ppm Col/20ppm Mono) 16MB/USB	From 899.00	1,056.32
AcuLaser C2000 As Above, 32MB/Network	From 1,599.00	1,878.82



Buy the Epson AcuLaser C1000

before 15th March 2002 and receive:



EPSON Projectors

Epson SVGA Projectors

	exc VAT	inc VAT
EMP-50 SVGA 1000 ANSI Lumens	1,599.00	1,878.082
EMP-51 SVGA 1200 ANSI Lumens	1,749.00	2055.07
EMP-600 SVGA 1700 ANSI Lumens	2,949.00	3,465.07
EMP-5600 SVGA 2200 ANSI Lumens	3,899.00	4,581.32

Epson XGA Projectors

	exc VAT	inc VAT
EMP-70 XGA 700 ANSI Lumens	1,799.00	2,113.82
EMP-71 XGA 1000 ANSI Lumens	2,149.00	2,525.07
EMP-713 XGA 1200 ANSI Lumens	3,299.00	3,876.32

EPSON Scanners

Epson SCSI Scanners

	exc VAT	inc VAT
Perfection 1640SU (1600dpi) USB/SCSI	211.91	248.99
GT7000 (ex-demo) SCSI	70.00	82.25

EPSON Digital Cameras

Epson Digital Cameras

	exc VAT	inc VAT
PhotoPC 2100Z (3.1 MegaPixel) - CompactFlash	305.53	359.00
PhotoPC 3100Z (4.8 MegaPixel) - CompactFlash	467.23	549.00

Seen a price cheaper elsewhere?
Please give us a call, provide us with details
and we'll do our best to better that price!

We now accept credit and debit cards...



Surftec
Internet Computer Solutions



Fig V: lots of special graphical elements make up a game like TEK

– for example models that were converted to a PC-compatible format using the standard tools lost all information about groups, which meant I couldn't select the bits of the model I wanted to apply textures to in *Bryce*. In the end I was forced to adopt the somewhat drastic measure of writing my own file conversion utility to solve the problem. Not perhaps the easiest thing to do at the time. However, in the end I felt the results justified the effort.

Although there was no easy solution to my file conversion problem, it's worth remembering that when you come across a particularly tricky problem it is likely that someone else has also run across it in

the past – and solved it. In many cases help may come in the form of a Web page or friendly fellow user on the newsgroups, or even a software package that is designed to tackle the very problem you're trying to solve. For example, as well as being a rendering package, *Bryce* is primarily used to create natural looking 3D environments, so was the obvious choice for creating *TEK*'s rivers (fig IV). I also used another PC-based package to generate 3D models of vegetation (which wasn't available in *Bryce* at the time) – rather than attempt the laborious task of modelling them directly in *TopModel*.

Producing the graphics for a game of

this type provides a number of challenges, not least the sheer volume of images that need to be created. For example, a single level is typically composed of the following elements : the units controlled by each player; the base buildings; ambient buildings; the tiles that make up the ground; the vegetation (trees, plants and bushes) and other background elements such as rocks, rivers, hills and 'specials' such as explosions (fig V). If you then take into account that some of these elements are animated, while others such as the battle units consist of a set of sprites which provide views of the unit from several angles, you can start to see why there's a

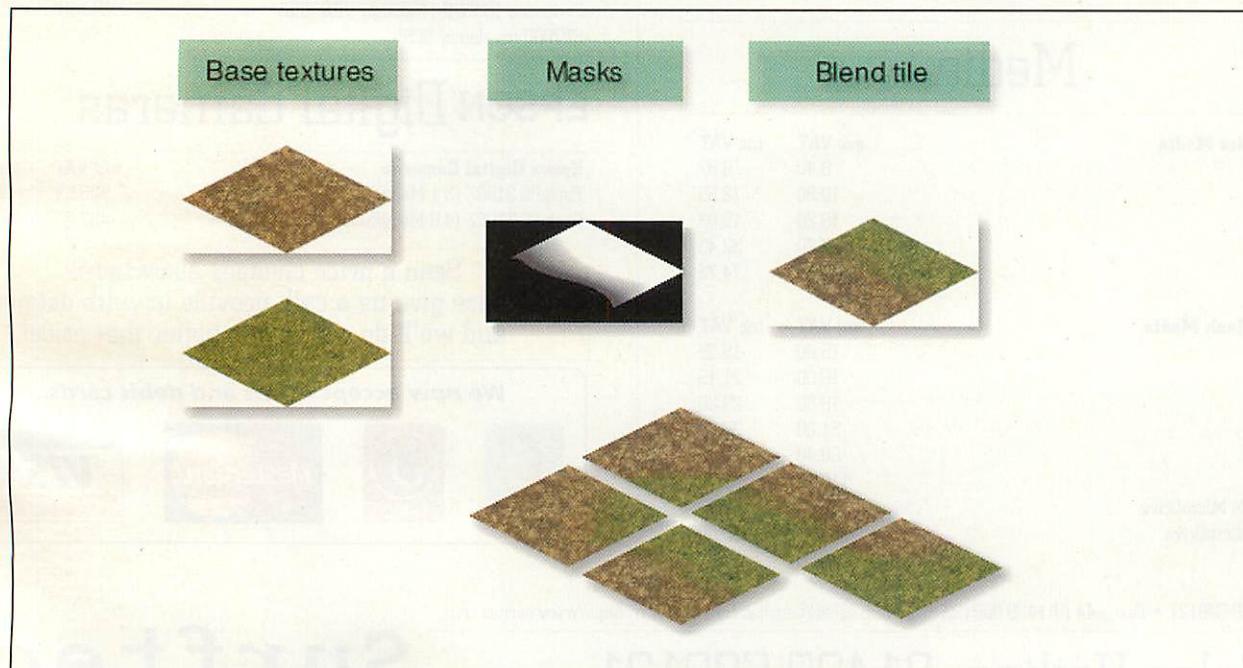


Fig VI: there are around 30 different types of blend tiles which can be slotted together to create patches of terrain

Giving you more



Choice
Stationery Supplies

10% Price Buster

"We constantly monitor our prices to ensure we offer you the best value, should you happen to find any of our products cheaper elsewhere, we will beat it by up to 10%!"
Terms & conditions apply.

Epson Compatibles



Canon Compatibles

Cartridge Ref.	Suitable for Use in	£
BC01 Black	BJ10E/BJ10EX/BJ20	9.35
BC02 Black	BJC150/BJ200/BJ220EX/BJC1000	9.35
BC05 Colour	BJC150/BJ210/BJ220EX/BJC1000	12.75
BC06 Photo	BJC240/BJC250/BJC1000	13.75
BC20 Black	BJC2000/BJC4000	10.45
BX02 Black	FAX B320/3410	9.45
BX03 Black	FAX B100/110/MP10	9.45
BJC4000 Twin	2000/4000/5000 (BCI21B & BCI21C)	4.39
BJC3000/6000	Black	4.49
BJC3000/6000	Each Individual Colour	4.49

HP Compatibles

Cartridge Ref.	Suitable for Use in	£
51626A Black	500/510/520/540/550C/560C	10.25
51625A Colour	310/320/340/540/550/560	12.99
51629A Black	600/660/690C/695C	10.45
51649A Colour	600/610C/612C/660C/690C/695C	14.99
51645A Black	710C/720C/820CXI/850CXI/870CXI	10.45
51633A Black	310/320/340	10.45
C6614ABlack	610C/612C	10.75
C6615ABlack	810C/840C/843C	11.75
C1823AColour	710C/720C/810C/815C/820C/895C	15.49
C6578AColour	970CXI/930C/950C/1220C/P1000	16.99
C6625AColour	840C/843C	16.99

Lexmark Compatibles

Cartridge Ref.	Suitable for Use in	£
13619HC Colour	1000/1020/1100/2030/2050/3000	15.29
13400HC Black	1000/1020/1100/2030/2050/3000	13.89
12A1980 Colour	3200/5000/5700/7000/Z11/Z31	15.29
12A1970 Black	3200/5000/5700/7000/Z11/Z31/Z51	13.89
15M0120 Colour	Z42/Z51/Z52	17.50
17G0050 Black	Z12/Z22/Z32	13.89
17G0060 Colour	Z12/Z22/Z32	15.29

Cartridges available for most of the Epson Stylus range including:
200/400/440/460/480/500/580/600/640/660/PhotoEX/700/740/750/760/
800/860/880/900/980/1160/1200/SCAN 2000 & 2500 & lots more!

Epson Stylus C60/ 680/790/810/870/890/1270/1290 Now On Sale - Call for Details.

100% Guarantee

These cartridges are made to ISO9000 standards and are guaranteed to be equal to, if not better quality, and have the same amount of ink as the manufacturer's original.

Specialist Inkjet Papers

A4 Gloss Range

Photo Gloss 140gsm 20 sheets	£ 4.49
Photo Gloss 140gsm 50 sheets	£10.99
Instant Dry Satin 150gsm 20 sheets	£ 5.99
Instant Dry Gloss 160gsm 20 sheets	£ 5.49
Instant Dry Gloss 180gsm 50 sheets	£12.99
Instant Dry Gloss 210gsm 50 sheets	£18.99
Instant Dry Gloss 254gsm 20 sheets	£ 9.99
Instant Dry Gloss Self Adhesive 20 sheets	£ 4.99
Double Sided Gloss 20 sheets	£10.99
7x5 Photo Cards	£ 4.99

Try Our Sample Paper Pack £4.49

Selection of the above papers.

A4 Matt Range

Coated Matt 100gsm 100 Sheets	£ 5.99
Coated Matt 100gsm 200 Sheets	£11.75
Coated Matt 140gsm 100 Sheets	£ 7.49
Coated Matt 160gsm 100 Sheets	£ 9.75
Coated Matt 210gsm 100 Sheets	£11.45

All Our Inkjet Specialist Papers are 2880 dpi Quality!

Others

T Shirt Transfer Pack 10 Sheets & Instructions	£ 5.99
Dark T Shirt Transfer Pack 10 Sheets & Instructions	£ 5.99
Business Card Pack 250 Cards	£ 3.99
CD Labels Matt Coated Pack 20 (2 per Sheet)	£ 2.99
CD Labels Gloss Coated Pack 20 (2 per Sheet)	£ 6.20
Clear OHP Film 10 Sheets	£ 4.99
A6 Greeting Cards & Envelopes Pack 25	£ 5.49
A5 Greeting Cards & Envelopes Pack 25	£ 6.99
Day Bright Paper 5x Green 5x Yellow 5x Orange (pack 15)	£ 3.99

Print any image onto any surface!

Simply photocopy your image onto Lazertran, soak the paper in water and the image slides off. Not recommended for use with inkjet or bubblejet printers.

8 x A4 Sheets for £9.99

All Our Prices Include VAT!

FREE Delivery - Same Day Despatch!

No Minimum Order! - Free Technical Advice!

All Major Credit Cards Accepted - No Surcharges!

100% No Quibble Guarantee On All Our Products!

FREEPHONE 0800 093 3231

Telephone 0870 44 22 460 Fax 0870 44 22 461

Choice Stationery Supplies Ltd,
Unit 2 Mart Road Industrial Estate,
Minehead, Somerset, TA24 5BJ.

Personal Callers Welcome.

All Trademarks recognised. E & OE.

Please call or visit web site for up to date prices.

Visit Our Secure Online Shop @ www.choicestationery.com



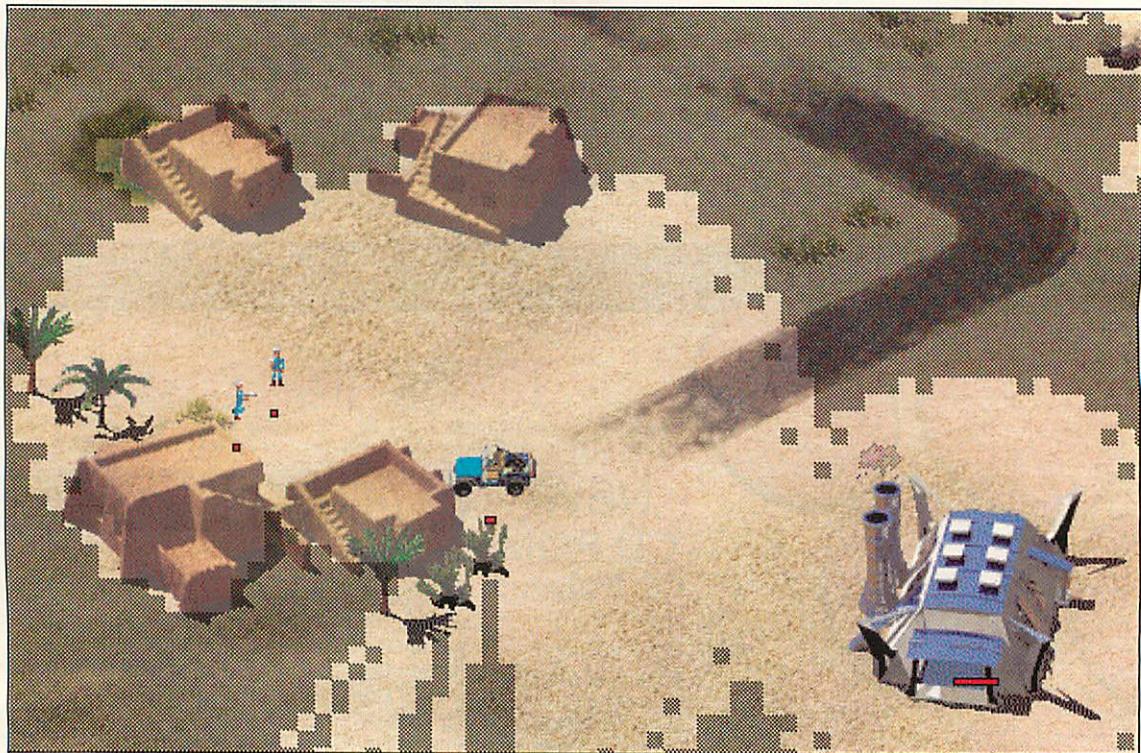


Fig VII: line of light shading

lot of work involved – and perhaps why it can take so long to go from a concept to a finished product.

All in all I've probably created thousands of sprites for *TEK*. When you work at this scale, you are constantly on the lookout for things to make your life easier. In my case, salvation came in the form of *Compo* (and *Composcript*). Simply speaking, without it, *TEK* wouldn't look anything like it does today and *Compo* saved me hundreds of hours, hours that were reinvested in creating more varied environments for *TEK*.

So what's so good about *Compo*? Firstly, it was invaluable for creating level mock-ups (some of the screenshots shown are mock-ups produced in *Compo*). These enabled me to provide feedback to Jan at Artex, check out new ideas, create sprites that could slot directly into the game engine and also refine the designs. Secondly, its masking and compositing tools are really good and allow you to overlay several elements while retaining the ability to alter their position until you get the result you want. Thirdly, once I had found a solution to a problem, I was often able to automate the process using *Composcript*, which is a programming language for *Compo*.

One task that benefited from *Composcript* was the creation of tiles that blend between one type of background texture to another, for example grass to mud in the jungle region. This process involved taking an alpha mask (originally

designed using a blend in *Artworks*) and applying it to one of the textures (mud), which was then overlaid on the other texture (light grass). The result was then saved with a one-bit-mask which defines the diamond shape of the tile. There are about 30 different types of blend tiles, which can be slotted together to create 'patches' of a particular type of terrain (fig VI). As you can imagine, the process of doing this 'by hand' could take quite a long time. However, once I had written a *Composcript* program I could just 'point' *Compo* at the two base textures and then let it get on with producing a complete set of blend tiles.

One of the more unusual features of the *TEK* engine are hills, which can be used to hide behind. This enhances the gameplay considerably, and looks fantastic when combined with the engine's other unusual feature - line of sight shading (fig VII). You can actually drive up to a building and fail to spot an enemy unit that is hiding round the far side, alternatively you can use the high ground to see more of the surrounding landscape. It's a really impressive feature that also looks great and all credit goes to the *TEK* programming team for creating something really special.

Towards the end of the project, it became apparent that although many of the necessary graphical elements had been created, there still remained a need for something extra. To me, some of the prototype levels seemed a little empty.

The solution we came up with was to create extra features to vary the structure of the levels. These extras took the form of cliffs, suggested by Jan, which enabled more interesting levels to be designed through the creation of no-go areas, as well as roads, waterfalls and tiles that incorporated background features such as plants, which could be used to break up large areas of grass. Adding these relatively small touches had a dramatic impact on some of the levels and resulted in a much more immersive experience.

While I could continue to describe how other elements of *TEK*'s graphics were tackled (vegetation, ambient buildings, units, etc), the result would probably fill a whole copy of *Acorn User*, so I'd better bring things to a close. Hopefully this article has whetted your appetite and given you an insight into some of the difficulties and solutions that can be encountered while working on the graphics for a game of this type. It's amazing to think that I still haven't met most of the *TEK* team, and virtually all correspondence has been conducted via e-mail.

If all goes well the real test of how good a job the team has done will come when the game is released, which should be around the same time you're reading this. Hopefully, you'll like the results – we certainly do!

Max Palmer
max@autumn0.demon.co.uk

Switching Solutions from.....



Use your RiscPC or PC keyboard or our NEW click multimedia keyboard inc RISC OS drivers only £34.95



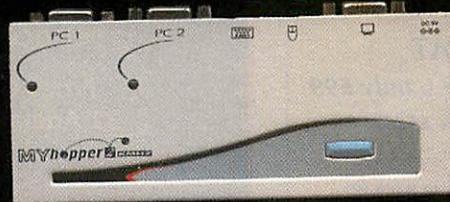
3-button Genius mouse (as used in STD standard mouse) FREE with switch or £10 inc as A7000 spare



Your Monitor

Keyboard controlled switch allows the use of a single monitor, keyboard and mouse with two machines.

Only £99.95 inc
Pack with PS2MouseMini only £113.90
Manual and other switches available



Your RISCPC
Here!

We are able to supply a range of custom high specification PC base units, eg:

Duron 1000 / 128MB memory / 40GB hard drive/ CD / modem speakers / keyboard / mouse £499 inc VAT

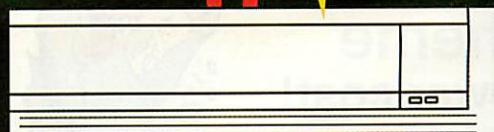


PS2MouseMini allows the use of PC-style PS/2 mice with all RISC OS machines which do not already have a PS/2 port (ie all but A7000/RiscStation) Use PC mice (or switches) Only £18.95

Athlon XP 1600+ / 256MB DDR memory / 40GB hard drive / DVD player / 12 x 10 x 32 burn proof CD-rewriter / 64MB Geforce2MX 400 graphics / periphs as above £799 inc VAT

Windows ME / MS Works bundle, installed, add £100 inc

Keyboard controlled switch pack inc PS2MouseMini only £100 inc when purchased with PC.



A7000, RiscStation and Omega machines may also be switched and do not require a PS2MouseMini interface

ParaFS



PARAFS is a parallel port networking system for machines fitted with a bi-directional parallel port (A30x0 / A4000 / A5000 / A4 / A7000 / RiscStation / Mico / Omega / RiscPC)

It is implemented as a filing system and so provides transparent file sharing across machines without the need for cumbersome and slow transfer programs. Files and directories which are stored on the remote machine appear as if they are local.

ParaFS typically achieves access speeds of well above 100K/sec, making it an ideal solution for most file-sharing applications.

£29.95 inc easy-to-find red transfer cable. £22.95 software only.

Standard mouse

A quality, branded 3-button mouse for machines fitted with a standard Acorn (9 pin connector) mouse port. Adapted for Acorn machines using our PS2MouseMini technology.

Only £19.95



Remember - all calls to our 0845 number are charged at local rate.....



Stuart Tyrrell Developments
PO Box 183, OLDHAM OL2 8FB
Tel: 0845 458 8803 / 01706 848 600
Fax: 0870 164 1604 (national rate)
Email: Info@stdevel.demon.co.uk
<http://www.stdevel.demon.co.uk>

Phone, Fax or email for a free product information flyer!

All prices include P&P
Delta/Visa/Mastercard welcomed.
All trademarks acknowledged. E&OE.

THE DATA STORE



- CASTLE, RISCSTATION AND MICRODIGITAL DEALER
- RISC OS 4 AUTHORISED INSTALLER

A large range of software and peripherals for all RISC OS computers stocked in our showroom in Bromley - pop in and see us or order by mail, fax, email or telephone!

SIBELIUS

THE MUSIC NOTATION SOFTWARE

The Data Store now provides the official Customer Support service for Sibelius Acorn programs.

Annual Subscriptions from £47 - please phone for details

SIBELIUS 7 now only £399 inc VAT

SIBELIUS 7 STUDENT only £249 • SIBELIUS 6 only £99

(SIBELIUS 2 FOR WINDOWS/1.4 FOR MAC now £525)

We also stock Graham Jones' excellent music scanning package
SHARPEYE - £60 inc VAT

6 CHATTERTON ROAD BROMLEY KENT BR2 9QN

Tel 020 8460 8991 • Fax 020 8313 0400

Web <http://www.the-datastore.co.uk>

Email info@the-datastore.co.uk

Open MONDAY - FRIDAY (except WEDNESDAY) 10.00-5.30
SATURDAY 10.00-1.00 (1.00-5.30 by appointment only)

MICROBITS

Everything you need and want in RISC OS computers, PCs, networks, repairs and point of sale systems.

All under one roof with our friendly, expert and efficient service.

Front Offices, Alfa Trading Est.

32 Adelaide St., Coventry CV1 5GT

Tel: 024 7655 0088

Fax: 024 7636 6452

Mobile: 0771 425 1011

E-mail: sales@microbit.demon.co.uk

Web: www.microbit.demon.co.uk



Virus Protection Scheme

New lower cost!



Pineapple's highly popular !Killer virus protection and removal software has proved amazingly successful at limiting the spread of viruses on Acorn/RiscOS computers over the last eight years.

Because of a reduction in the number of new viruses being found, we are now able to reduce the number of update discs members receive, to just two per year. This in turn now means that we can also reduce the cost to members to just £15 +vat for their annual subscription.

However, there are still 223 known different virus types which can still cause havoc on your RiscOS computer system if you do not take the simple step of subscribing to the Pineapple Virus Protection Scheme. Don't risk getting infected - join now!

Joining Cost £20 + vat (£23.50)

Renewal fee £15 + vat (£17.63)

Pineapple Software

PO Box 83, Bognor Regis, West Sussex, PO22 7WB
Tel 01243 587122 Fax 01243 587953
email: sales@pineapple.demon.co.uk
www: <http://www.pineapple.demon.co.uk>

This is an entirely serious advertisement* for:

WebChange

The website maintainer's tool for RISC OS

WebChange is a support tool for website designers and maintainers, and is particularly suited to those who prefer to edit their HTML by hand, rather than leave the markup to other software.

The primary function of the software is to enable the site maintainer to effect repetitive changes to a local copy of a website quickly and easily, often in one fell swoop, rather than having to make the change on a page by page basis.

Features include:

- wildcarded search and replace across an entire directory tree
- automatic embedding of other files, date stamps, and sizes
- conversion of all newline codes between CR, LF, LF/CR & CR/LF
- add and remove Windows and Unix style filename extensions
- automatically insert ALT text in image tags if none is present
- script language so that any series of tasks can be dealt with as one
- and of course much more besides.

For more details, please write to the address below, or visit the Soft Rock Software website at: <http://www.softrock.co.uk>

WebChange for RISC OS costs just £15, and can be ordered online or by sending a cheque or postal order to:

Soft Rock Software
124 Marissal Road
Henbury,
Bristol,
BS10 7NP

Please supply an email address, as the software is normally supplied online (you will receive a password/username by email in order to access the download pages)

* Unlike most previous adverts from Soft Rock Software, this one contains absolutely no humour whatsoever. This statement of exclusion of humour in no way constitutes humour itself (honest), and any resemblance it bears to humour is purely coincidental. This lack of humour does not affect your statutory right to be amused by it if you so wish.

Showing off in the south-west of the UK

The RISC OS South West Show 2002 took place on Saturday 2nd March in Loxton, Somerset. The show is organised by John Stonier, who previously organised similar shows for both the Midlands and the South East as well as the South West, and is run by the Bristol Acorn Risc User Group and Wessex ARM User Group.

From the "wrong" side of London, Loxton is about a four hundred mile round trip for me, so I hadn't even considered attending the show in its early years. But I had found time to visit the show in 2001 and enjoyed it, so I decided to make the journey again, this time sharing my car with some other ROUGOL members. Navigation to the show by road is fairly simple, with all but the last few miles being motorway; and it's amazing how much progress can be made (even round the M25) by setting off before dawn on a Saturday!

Sadly I didn't set off quite as early as I'd hoped, and a delay on the M4 meant that I missed the first presentation of the day, which was by Castle's Jack Lillington. The main news of the day from Castle was the presence of the prototype 100Mbit network cards (for both NIC slot and podule slot of *RiscPC* and *A7000*) which had been announced previously.

100Mbit network cards were very much the flavour of the day, with the show also seeing an announcement from Roy Heslop (CTA Direct and *RiscStation*) of a different 100Mbit card to be available as an ISA card upgrade for *RiscStation* users, and as a NIC slot card for *RiscPC* and *A7000* users. This card is planned to be rather cheaper than the Castle offering, at £69 excluding delivery and VAT, and also provides 512KB of flash ROM as an extra, for those who wish to program some of their modules into ROM rather than loading them from disk.

For those puzzled by this sudden proliferation of network cards, it's worth explaining that current network cards in *RISC OS* computers, mostly from either ANT or i-cubed, almost all provide only 10Mbit ethernet capability (there are also some old, and even slower, Econet cards lurking in a few places, plus some more unusual ones). As the name suggests, 100Mbit ethernet provides a theoretical maximum performance up to ten times greater than the existing 10Mbit system.

It's unlikely that we'll see the full benefit of this on any existing *RISC OS* computers, due mostly to memory bandwidth being insufficient to take advantage of the full 100Mbit speed. However, even in the *RiscPC* (sadly the worst case due to its ageing memory bus), speed improvements at least doubling current transfer rates are expected.

For those who sometimes find that copying substantial amounts of data to or from *RISC OS* machines is slow, or those who need greater network bandwidth for specific applications, these new cards are exactly what's needed. Even those users who haven't yet installed network cards in their *RISC OS* computers would be well advised to go for the 100Mbit versions as their first network card, since some new *RISC OS* computers (Cumana's Slym and *RiscStation*'s laptop) have 100MBit networking as standard. In addition, the new 100Mbit cards are roughly the same price as the old 10Mbit ones (in Castle's case), or even cheaper (in the case of the card from CTA).

There's nothing to stop you using the 100Mbit network card in your *RiscStation* laptop to connect it to an old 10MBit card; but it makes sense to start off with the higher speed, rather than having to upgrade later.

Having said all that, there are bound to be a great many old 10Mbit network cards in the second hand market once the new upgrades begin shipping; so if you've never been able to justify the expense of a home network before, this is your chance!

Some have questioned whether the separate development and almost simultaneous release of two 100MBit network cards for *RISC OS* computers is an unnecessary duplication of effort. However, the companies involved have made clear (it was mentioned in Roy Heslop's presentation) that their respective cards are the result of work which they have been doing for other products anyway. In Roy's case, 100Mbit networking has recently been added as standard to the design of the *RiscStation* laptop; and in Castle's case, Cumana's Slym product also requires a 100MBit interface.

The upshot is that the *RISC OS* market looks likely to move on from one ethernet speed to the next very quickly, with some competition between different

products to get things going! Within a few days of the show, Castle responded to the cheaper alternative network card by announcing a special offer whereby purchasers of Castle's 100Mbit network card for NIC slots (not podules) receive a free *RiscPC* case slice. This offer ends on 31st March 2002, so may be too late for many readers, but it's certainly an indication that competition in sales of the new faster cards produces benefits for customers.

In his presentation, Roy Heslop pointed out that the 100Mbit network card wasn't the only technology spin off from the *RiscStation* laptop; the availability of desktop *RiscStations* with faster 50ns memory was another result. This faster memory can make a big difference in speed when using more demanding screen modes on the *RiscStation*.

Understandably, the audience at Roy's talk was primarily interested in the *RiscStation* laptop. This could still only be viewed as a case design running Windows rather than *RISC OS*, albeit with screensavers and other devices to give an idea of the likely appearance of the final product. Roy re-iterated that shipments of the laptop to customers (or rather, to those who've placed deposits!) were still planned to begin in late April.

It was mentioned again that the laptops will be built in discrete batches, with the result that anyone who doesn't place their deposit in time to secure a machine from the first batch, may have to wait a very long time for enough orders to accumulate in order to manufacture another batch.

This is a sad aspect of reality that *RISC OS* users have experienced as long ago as the *StrongARM* upgrade, so if you really need to have your laptop by a specific date, it's best to place the deposit as soon as possible.

Roy confirmed that the *RISC OS 4* GUI of the laptop would be visually different from existing *RISC OS 4* systems, with a changed look that retains the same basic appearance and operation, but has a smoother and more spacious feel that he said bore some similarities to aspects of both *Windows XP* and *Mac OS X*.

Part of the reasoning behind this is that Roy is keen to see the laptop used to promote *RISC OS* outside its existing markets and user base. In fact, he said that a portable *RISC OS* machine is

absolutely essential in giving people outside the existing *RISC OS* market the chance to see *RISC OS* in action.

Roy pointed out that very few people outside the existing market are aware of the qualities and advantages of *RISC OS*; he runs a high street shop which caters for ordinary *Windows* users as well as others, and many of them immediately assume that *RISC OS* is "something from Apple" when they see it running in the shop!

Roy then moved on to the specification of the laptop. One possible cause of confusion here is the distinction between what's promised as part of the laptop "on its own", and what will come with the optional docking station at extra cost. Unless specified otherwise, all of the features below were mentioned as being part of the basic laptop specification on its own.

As well as the ordinary SVGA video output previously announced (to drive standard monitors), it will also have an S-Video output, suitable for driving TV monitors (and indeed many televisions). Both these outputs will be capable of resolutions up to 1600x1200.

Another likely extra is a MIDI port, though this may need a small adapter in order to be used.

Of importance to many people is the promise of a modem socket. Roy said that this was likely to be a Mac-style 8 pin DIN socket driven by soft modem software, and that the adapter required to connect it to an ordinary telephone socket is an off the shelf item. On a similar note, he expected that support for serial connections using the laptop's IRDA (infra red) port would be available by the time of release, thus allowing wireless Internet access via mobile phones or similar devices, as well as other possibilities.

He was less optimistic about the provision of a full IRDA stack, saying that this was a considerable amount of development work and would be justified only if there was sufficient demand.

The laptop will have a single PCMCIA slot (the established standard for small plug in cards for portables), and the first priority will be to get a modem card working. As with full IRDA support, development of any further add on cards would depend entirely on whether demand justified them (although Roy did say that a radio based LAN card was being worked on). It's a pity that there are some possibilities that may never come to fruition because of limited demand; but

even so it seems that the laptop will have a whole host of connectivity options never before seen in production *RISC OS* computers, even at its release. The good thing about features being driven by demand is that those extras of particular importance to certain people are being added to the specification; the infra red support being one example.

As expected, there will also be connections for an external microphone and speakers, as well as internal stereo speakers which Roy said would be reasonable quality. As yet another unexpected extra, Roy raised the possibility of a mini printer port (requiring a special cable) in the laptop itself. He admitted that the profusion of extra ports being added to the laptop itself would tend to decrease the attraction of the docking station!

As well as a full size parallel printer port, the docking station will include an alternative ethernet connector, CD-ROM and floppy drive, an SVGA output to drive your monitor, and serial and PS2 ports. One visitor asked the best way to access material on CD and floppy if unwilling to pay extra for the docking station. The best solution to this may well be to use the network card (which comes as standard with the basic laptop) to connect to your existing *RISC OS* system (or even a PCI) in order to install software.

Of course, this is a disadvantage if you're given a CD "on the road" and want to look at it straight away whilst nowhere near any computers at all; but the impetus to keep the laptop small and light does result in compromises (even some PC laptops substantially larger than the RiscStation model don't include CD or floppy).

In terms of portability, Roy also mentioned that the base station is roughly the same size as the laptop itself (the connector to join them is on the underside of the laptop), so those who do buy one would have the option of taking it with them if necessary. Roy did also mention the possibility of a separate CD drive (to connect to the laptop via USB) later.

Roy also said that there would "probably" be a separate mouse connector, but even if not, the use of USB mice via the laptop's USB port would be possible. The laptop itself will effectively have three buttons in addition to its touch pad, with *RISC OS* software that gives users the choice of which button will be Select, Menu and Adjust. The laptop case also has a cleverly hidden pointer

for the touchscreen.

On the question of power, the plan is still for a standard battery giving approximately three hours' use, and an optional more expensive one (the same physical size) giving around six hours' use. Roy mentioned the possibility of a "super battery" giving even longer use, but again this would depend on demand. An adapter to power the laptop from car cigarette lighter power supplies will be available as an option, but Roy said that he couldn't guarantee that this would also power the docking station until it had been tested.

RISC OS Ltd

The talk by Paul Middleton of RISCOS Ltd followed almost immediately after the RiscStation talk. At the previous year's South West Show, Paul had caused some consternation by talking hardly at all about *RISC OS* as a desktop operating system, but instead spending the entire talk on his vision of how computing would develop in the future. This year, however, things were very different. A show of hands revealed that very few in the audience had seen Paul's previous presentations explaining and demonstrating the developments under way in *RISC OS Select*, so Paul used the majority of his allotted time to demonstrate some of the features in the current Select beta, as well as some of those under development.

Much of this material has already been covered in *Acorn User*, so I won't dwell on it here, however it's worth mentioning a few of the additional enhancements gradually appearing. These build on the facilities that were added as part of the original *Select* developments. For example, a major component of *Select* has been the re-organisation of the configuration options normally accessed via double-clicking *!Boot*.

The ability to utilise configuration plug ins from third parties means that this can now be expanded. One such third party plug in already available is the *Apps* configuration which allows alteration of the default settings for *Draw*, *Edit*, *Paint* and *SciCalc*. *Draw* in particular has a whole range of possible configuration settings which most users have never been aware of.

Replay is another area which will make use of a configuration plug in, and Paul demonstrated some of the possibilities which will be available. Multi-tasking *Replay*, which has been available in beta versions even since the *Acorn*

days, will finally make an appearance, and there will even be an option to have a *Replay* movie playing as your backdrop. This latter facility can require a huge amount of processor power, though, and its demonstration (involving a German language version of a film that was clearly familiar to some sci-fi enthusiasts in the audience!) threatened to take over the entire machine unintentionally.

Another new possibility is for *RISC OS* automatically to run a *DiscKnight* check of the hard disk if the operating system detects that the computer was not shut down properly. Those *Select* users who were annoyed by the message about the computer not having been shut

down properly, which was introduced in previous versions, will be pleased to hear that the automatic disk check is optional! The possibility was also raised that even the warning may possibly become optional in a future version of *Select*.

OmniClient is another area that has seen development under *Select*, and as well as the ability to access files on other operating systems (which under *Select* now adds an *AppleTalk* client for accessing Macintosh systems), Paul mentioned that "OmniFTP" was now on the way, allowing FTP servers to be accessed in the same way that *OmniClient* shows other computers' filesystems. Paul said that a single configuration setup will eventually cover both the internet facilities including in the operating system, and the extra internet components that form the *ANT Suite*.

A great many users have clamoured for DHCP support in *RISC OS*, and Paul said that work on this had therefore been brought forward as a priority, in preference to other developments; release is therefore likely to be quite soon. He also admitted that there had been much longer than expected delays in the release of the first *Select* CD, which many *Select* subscribers are waiting for before installing *Select*, rather than trusting the beta versions downloadable from the *Select* Web site. The final problems with the CD version are being resolved, and it is hoped that its delivery is therefore imminent.

Whilst demonstrating the configuration options allowing the user to decide which version of *RISC OS* to softload at the next boot up, Paul mentioned the possibility of softloading something other than *RISC OS*.

No more was said about this, but it's certainly an intriguing possibility. There

was a reminder that the computer should be switched off completely (not just rebooted) when choosing which *RISC OS* version and boot sequence to use, as forgetting to do this has caused problems for a number of people.

The ability to edit JPEG graphics files directly just by dragging them to Paint is one of the additions of *Select*, and Paul said that future development would see multiple save options in Paint, so that one can save in Sprite, JPEG or other formats, as well as deciding what quality to save a JPEG as (essential if you're saving graphics for web pages, or doing photo retouching and aiming to maintain the quality of the original).

There will apparently even be an "HTML" save option, which will save a piece of HTML with the correct HREF link and SIZE options, ready to drop straight into your HTML page in order to reference the JPEG you're editing.

Another development on the graphical front will be an updated version of AWViewer. With the assistance of Martin Wuerthner, this will support viewing of all the new types of ArtWorks files possible with the new versions of ArtWorks being developed by Martin, which have moved forward by leaps and bounds in recent months.

It's worth re-iterating that I've mentioned just the new things over and above the existing *Select* developments, which stood out in what was mentioned; the actual demonstration of *Select* covered far more, even though it was substantially shorter than Paul's more comprehensive run throughs and explanations at user groups. Detractors of *Select* have described it as just trivial tweaks and "fun" add-ons, using the new version of Puzzle as an example. However, Paul emphasised that the more light-hearted changes such as Puzzle have been worked on by individuals, rather than using RISCOS Ltd's programming resource.

The talk also covered *RON*, the project to create a version of *RISC OS* for the *StrongARM 1100*-powered Psion *netBook*. Paul said that work on *RON* was still continuing as resources allowed, however it was unclear whether it would appear as a full implementation of *RISC OS* (similar to the desktop version), or whether the requirements of those funding the work would be for a less complete implementation.

Paul mentioned that the *SA1100* offered noticeable performance improvements in some areas over the

SA1100 currently used in desktop machines, for example being extremely fast at running *Doom!* *RON* may even move to a different Psion system other than the *netBook*, if circumstances so dictate. On a more positive note than previous comments on the topic, Paul also said that the work done on the *RON* project would help to act a stepping stone to the changes in *RISC OS* required for ARM hardware of other types. He did however point out that the need for a 32-bit version of *RISC OS* was not quite as urgent as some have claimed, with the next generation *XScale* processor being much slower to appear than expected.

The RISCOS Ltd talk did finish with a foray into similar ground covered by the talk at Loxton last year, with discussion of the potential of *RISC OS* in fields like network terminals and other client devices, rather than traditional desktop computers. However the details about *Select* and *RON* were of more interest to the traditional *RISC OS* users who made up the vast majority of the audience, so the less desktop oriented comments were fitted into the last five or ten minutes.

Moving back into the main area of the show, I now had time for a longer look around. The show had been very busy when I arrived, with a noticeable buzz of conversation, and the main hall seeming just as full as it had been the previous year. Most of the exhibitors I spoke to said that business had been as good as the previous year, with one or two even saying it was better. However as the afternoon drew on the show became quiet much more quickly than the previous year, perhaps partly because of the comparatively small number of new products being launched.

One new item for the show was Cumana's *SLYM* product, now in the even slimmer version which allows the system itself to be mounted in a metal case at the back of the 15" LCD screen, thus allowing the complete unit to be "hung on a wall" if necessary, using no deskspace or floorspace at all. The version which had been seen at the *BETT* show, with the system housed in a see-through plastic case, was also on show. This case design won't be used in the production versions, although it apparently got quite a good reception from a lot of educational users at *BETT*.

Cumana also emphasised that they are able to produce systems in any case design required, if needed for a particular customer.

The Slym uses Castle's *Neuron*¹⁰⁰ board with a 64MHz *ARM7500FE*, and Castle also had some news on the *Neuron*¹⁰⁰'s successors. The *Neuron*²⁰⁰ will definitely use a *StrongARM 110*, and will eventually supersede Castle's existing *A7000+* and *RiscPC* designs by being incorporated into the existing cases.

No in-depth information on the *Neuron*²⁰⁰ design was available, and it seems likely that any desktop machine based on it will not appear for some considerable time. Even so, it offers the prospect of a new *StrongARM*-based desktop computer which does away with the *RiscPC*'s weaknesses of slow memory bus and I/O, whilst presumably also incorporating more modern connectivity options. Even though the current specifications for *Neuron 200* indicate an "old" *RiscPC*-style hard disk interface with only 2MB/second throughput, the project is still a very welcome development, particularly if delays continue to affect other projects such as MicroDigital's *Omega*.

Castle also released at the show, to complement their new network card releases, a sophisticated home network pack. This includes network cards, thirty metres of suitable cabling (experience tells me that at least some network cables suitable for 10Mbit connections won't be sufficient for error free 100Mbit connections!), and a switch/router which offers trouble free use with ISDN or broadband ADSL connections, as well as other options. If we also consider the home network packs offered by R-Comp, it's clear that networking will once again be a major topic in the *RISC OS* enthusiast arena.

I missed the talk given by Paul Richardson of ExpLAN, however it seems that the news was not good with regard to the *RISC OS* version of their *Solo* computer. From what Paul said, it seems that ExpLAN have not been offered a

license for a version of *RISC OS* that will suit their requirements. These include a 32-bit capable *RISC OS* to allow them to use *ARM9* processors with specific advantages for the *Solo*, as well as other features.

In addition, Paul had concerns over whether the current restrictions on the licensing and development of *RISC OS* would be a suitable fit for the *Solo* project's aims of providing IT solutions in countries whose economic relations with the developed world are problematic at best. At present it looks likely that the production versions of the *Solo* will utilise only *Linux* and *Windows CE*. There is a temptation to suspect that the latter might provoke similar concerns about one company having sole control over licensing and development of the OS, however the operating system in question does support the *ARM9*!

ExpLAN were also discussing USB printing at the show. The technology to do this from *RISC OS* had been developed by them some time ago, however fortune dealt a foul blow when the USB A4 inkjet printers from both Epson and Canon were both withdrawn from sale. Thus USB printing from *RISC OS*, offering a number of nice enhancements such as being able to monitor ink tank levels from the desktop, will not be available yet. ExpLAN were instead focusing mostly on sales of LCD monitors.

On the software front, *Virtual Acorn* was being demonstrated, and the Cerilica stand saw the first appearance at a show of *Insignia*, the new software for creating text titles; R-Comp had the *Server Edition* of *Messenger Pro* on sale.

There was no shortage of exhibitors, with familiar faces from other *RISC OS* shows including Chris Hornby of Photodesk Ltd (hinting that USB solutions for cameras might be on sale by the Wakefield show), and Mike Williams showing off *Acorn Publisher* magazine and a wide range of design books for both print and web.

Local shows like *RISC OS South West* have a number of advantages. Not only does it give people in the area a chance to meet up with *RISC OS* dealers and developers without journeying several hundred miles (and those of us happy to travel such distances another chance to catch up with recent *RISC OS* events!), but it also provides a showcase for those smaller

dealers and developers who wouldn't normally be able to make the journey to any other show.

Examples included Vince Hudd's Soft Rock Software with *WebChange*, Brian Jacques with the HTML tutor CD, and StrongARM Systems with their *Cognitive Rehabilitation* software. Other small exhibitors had made rather longer journeys, with Jonathan Duddington's *Pluto 2*, John Cartmell's range of Fleur Designs board games, and Robin Edward's company Serious Statistical Software all having stands.

The show had a well produced and professional printed guide which also came with handouts from Melotech and CJE, plus a free sticker from RISCOS Ltd for those with *RISC OS 4* to attach to their systems! As I have three such systems, only giving away one sticker seemed a bit unfair, but perhaps some more will be available at the Wakefield show?

One unfortunate aspect of the show, from my point of view as a visitor, was the haste with which many exhibitors sought to dismantle their stands long before the official show time was over. Admittedly the show was very quiet indeed during the last hour or two, and I know that some exhibitors had specific commitments elsewhere.

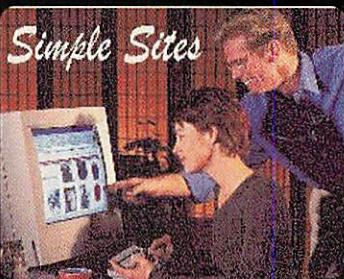
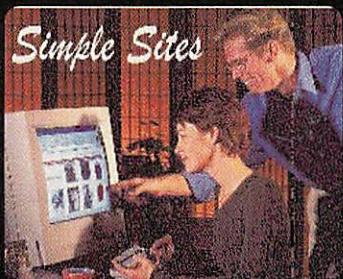
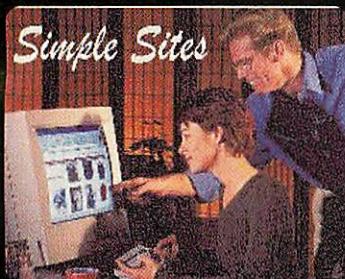
However, one must imagine the reaction of a visitor with their own time constraints, who perhaps made a special effort to reach the show by 3pm, thinking that they would have an hour and a half to browse the stands. They would be very disappointed to find a substantial proportion of exhibitors beginning to pack up soon afterwards, with some even leaving before the advertised closing time.

A commendable exception - albeit perhaps of less interest to the average *RISC OS* user - were the *NetBSD* team, with *BSD* running on *RiscPCs* and even an *A3020* (that must be slow!), and furry red daemons keen to do... whatever it is that daemons do, all night if necessary.

Leaving aside that one negative aspect (which is mostly beyond the organiser's control), I enjoyed this year's *RISC OS South West Show* just as much as last year's.

And I even found that there were many things I had to catch up on later in order to produce this report, so it was certainly far from being an uneventful show.





Affordable, professional Web sites *you control*

A professional Web site is the first requirement for a small business's success online. Unfortunately, learning Web design software, programming and scripts can take forever.

That's why Simple Sites was developed.

If you can use your basic computer controls, you can have your own e-commerce Web site up and running in a flash!!

Our ready-hosted Web sites are ideal for small to medium businesses, individuals, families, couples planning their wedding, artists, sports teams, charities, youth organisations etc.

We offer a low-cost simple option with no contract! So, if at any time you no longer need or want the site, give us 48 hours notice and THAT'S THAT!

We are real people who are first and foremost understanding and friendly. We have been where you are now. If it's all new to you, we are a good place to start, as we believe that the only silly question is the one you don't ask!

Visit our Web site for further information and a tour of our service

www.simple-sites.com

Part 4: Tracking media

In the last issue we covered the creation of the basic elements of *MediaTrak* program from data types to elementary programming and a few simple commands. This time we will look at quite a lot of programming and other application resources in order to form the core of our program.

The first thing to cover is almost an apology: I have been using *S-Base* for a very long time, almost from the time the first version appeared. Since then I have spent a lot of time developing and refining an application shell that permitted extremely fast creation of relational database applications.

Unfortunately the crunch came when I turned this shell into a practical application that ran on an *A7000+* and it turned out to be so slow that it was virtually unusable. However it is a truism to say that no time spent programming is wasted, and I learned a lot.

What you will be creating from now on is based on my second attempt — something rather simpler than the juggernaut of my original work but with all the techniques honed.

The result of this and the next issue's work is a program skeleton which can be fleshed out to fill the requirements of many different applications — should you choose. We are familiar with skeleton applications in *BASIC*, such as Justin Fletcher's skeleton with *BASIC* libraries that make the creation of WIMP programs easier by shielding the programmer from the detail of WIMP programming.

In *S-Base* you are already shielded from the WIMP however the skeleton here provides a structure into which a program can be easily fitted and automates a lot of the necessary functions. So let's get to it.

Absolute constants

In the last article we looked at the usefulness of using a standard datatype to allow values to be changed later that affects the whole program in one fell swoop. Now let's look at constants.

5: Constant list: Media Track	
Label	Value
IBM_INFOBOX	0
IBM_QUIT	1
APP_MAXITEMS	10
CTRL_ZONE_NONE	-1
CTRL_MAXZONES	10

Fig I: adding to the Constants resource

A constant is a name that is given to either a number, or a string, or even a calculation. Open up the Constants resource and you'll see the list that's preset, we want to add five new constants.

Press Control+N and enter

IBM_INFOBOX, press Return and put in a value of 0 (zero) and press Return again. That's your first one and it is added to the bottom of the list. Following the list add the other four as shown in Figure I.

Constants must always have capital letters and must not contain digits, but can have the underline character. The use of "IBM" has nothing to do with the computer company, it stands for Icon Bar Menu. We have two entries for this, one for the info box and the other for the Quit entry in the menu. We'll be using these later.

The other three constants are used in the skeleton structure we are creating and will be covered very soon.

Word to the wise: If you use a calculation in a Constant (bad choice of word in this case) you should put brackets around the outside. Let's say you have a Constant called ADD_EM defined as 3+3, this is the effect it will have:

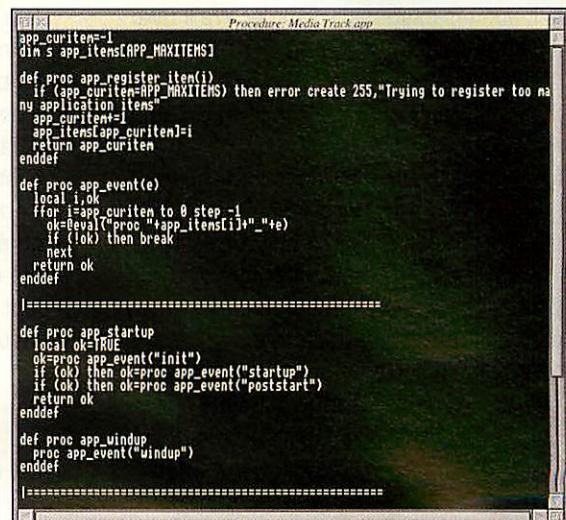
```
print ADD_EM      6
print 3+ADD_EM   9
print 3*ADD_EM   12 (not 18)
```

But if you define ADD_EM as (3+3) you get the expected answer of 18 in the final example.

Processing S-Base

Before we plunge into the deep end with the programming we must look at what *S-Base* does when it first starts up. One of the most important things is that it scans all the procedure resources and registers all the procedure names before starting to run anything — unlike *BASIC* which looks for procedure names only when they are requested.

But it is a little more complex than that, what *S-Base* does is take each procedure resource in turn and runs it, before running the "startup" program resource. When it "runs" a procedure definition it stores the name and position of each procedure then finds the end of it and



```

Procedure: Media Track.app

dim app_curitem=-1
dim s app_items[APP_MAXITEMS]

def proc app_register_item(i)
  if (app_curitem>=APP_MAXITEMS) then error create 255,"Trying to register too many application items"
  app_curitem+=1
  app_items[app_curitem]=i
  return app_curitem
enddef

def proc app_event(e)
  local i,ok
  for i=app_curitem to 0 step -1
    ok=eval("proc "+app_items[i]+" "+e)
    if (ok) then break
  next
  return ok
enddef

=====

def proc app_startup
  local ok=TRUE
  ok=proc app_event("init")
  if (ok) then ok=proc app_event("startup")
  if (ok) then ok=proc app_event("poststart")
  return ok
enddef

def proc app_windup
  proc app_event("windup")
enddef

=====

```

Fig II: contents of the app procedure resource

proceeds to the next line.

This means that we can have code in a procedure resource, which is not inside a procedure definition, and that code is actually processed and run. We could, for example, put a "print" statement at the start of every procedure resource, perhaps printing the name of the resource, and follow *S-Base* as it runs through each one.

We can use this behaviour to arrange some initialisation of variables for later use. But we can be even cleverer than that. Wherever possible I like to get things encapsulated so that they don't interfere with other parts of the application in any way; I try to arrange things so that entire segments of a program can be slotted in, copied or taken out with a minimum of effort such that the main application continues to run as if nothing much has happened.

To see how this works in *RISC OS* take a look at the way Modules operate. When they are loaded *RISC OS* assumes they have certain entry points into their code which perform things like initialisation and shutting down. A properly written module can be loaded and removed smoothly without upsetting the rest of the machine. We can do something like that with *S-Base*.

What we do is have an app procedure resource that looks after the registration of application items, their initialisation, sending messages to them to make them do, or check something, and to ensure smooth winding up of their operations.

This might sound complex but if done correctly actually makes things very much simpler, it just requires an understanding

of what is being done and why.

Figure II shows the entire contents of the app procedure resource, there is a lot in it but it is essentially simple. We'll take it one stage at a time.

The top two lines are executed before the main application begins to run. The first line simply sets up a variable (must be lower case and no digits allowed in the name). This is one less than the number of application items currently registered.

The second line is similar to a *BASIC* DIM statement, and defines a string array called `app_items` which has `APP_MAXITEMS` entries, also notice the use of square brackets [] unlike *BASIC*'s (). This is where our first constant comes into play. If we wanted more items then we adjust the constant which affects all parts of the program that use this value.

In *S-Base* all arrays are given a type, although you can define more than one array in one statement and give each one a different type: `s` is for string; `i` is for integer; `f` is for floating point; `d` is date; `t` is time; `x` means undefined and every element of the array can be of a different type (not something I've ever found useful); while finally `z` is used for structures which will be covered later.

These two lines are all we need to initialise the variables for registering and controlling application items.

Now we have a procedure called `register_app_item(i)`, notice that all keywords are in lower case and that there is a gap between `proc` and the name of the procedure, this procedure has one parameter which will be the name of the application item as a string.

In this procedure the first thing we do is check to ensure we haven't exceeded the maximum number of permitted application items, if it is too many a fatal error is generated. Otherwise we increment the number of items, store the name of the item being registered in the array and return the number we just used. The application item that is being registered can store this number in its own variable so that it has its own identification.

In *S-Base* there is no differentiation between procedures (which don't return a value in *BASIC*) and functions (which do). It is all done by a proc, if it has a `return` command then it returns a value, otherwise it doesn't.

The next procedure is used to send an application event to each of the registered items in turn, and also return a value to indicate if there has been an

error. A word of warning, this procedure uses a lot of programming concepts in a very compact form.

The parameter for this procedure `e` contains the name of the event to issue, it might be `init`, `windup` or something else depending on the needs of the application being written.

Firstly we create two local variables: `i` is used as a loop variable and `ok` is used to store the results.

We now have `for..next` loop, except that it's a `ffor..next` loop. In the usual `for..next`, if you have something like:

```
for i=1 to 0
  print i
  next
```

The loop is always executed once, with `i=1`, even though 1 is bigger than 0. To stop this you would need a `while` loop:

```
i=1
while (i<0)
  print i
  i=i+1
endwhile
```

to ensure that the loop isn't executed if `i` is equal to or greater than 0, this is very inefficient. *S-Base* introduces the `ffor..next` loop which does the check first and doesn't execute the loop if the condition fails right at the start:

```
ffor i=1 to 0
  print i
  next
```

would produce no output.

So this loop won't execute if no application items have been registered, avoiding a potentially fatal crash. The other point about this loop is that it counts down rather than up, this means that the most recently registered application item always gets called first. The "oldest" gets called last.

Now we come to a particularly dense line:

```
ok = @eval("proc "+app_items
[i] + "_" + e)
```

Let's take this from the inside out. The bit inside the brackets creates a string which is the name of a proc. Let's say that `i=0` and that application item zero is called `control`, and that this event is `init` asking for initialisation. The string created is:

```
proc control_init
```

Outside the brackets we have `@eval`, the first thing to know is that all built-in functions in *S-Base* start with the @ character, so this is a function and expects to return a value. The `eval` function takes a string and executes it as if it were a piece of normal code that returns a value.

So `proc control_init` is called and executed and is expected to return a value which is finally passed to the variable `ok`. This value will be either 0 (false) if the initialisation fails or 1 (true) if it was a success.

The next line checks to see if `ok` is true or false, the ! operator is a NOT function so inverts the true or falseness of the variable. If `ok` is false the result if the NOT is true so the command `break` is executed.

What `break` does is jump you out of whatever loop you happen to be in to the next one out. It will also break you out of a multi-line `if..endif` statement but it will not break you out of a proc, use `return` for that.

If `ok` is true you don't jump out of the loop and continue to go round running the event for each of the application items until there aren't any more, then we exit the loop.

At this stage the last result of `ok` is returned either true if there has been no problem, or false if something went wrong. Phew.

The next procedure definition `app_startup` is the entire start-up routine for the whole application, notice how simple this is. Each application item looks after its own initialisation routines, we don't have to worry about it here beyond calling the procedure that will get it done.

Very simply it calls the `init` routine in every application item, then if everything is okay it calls every `startup` routine, then it all is still well it calls every `poststart` routine. Finally it returns a value that says whether it was a successful startup or not.

The reason for three separate start-up routines is that there can be dependencies between different application items which can make it difficult to decide what order to do things in.

`init` is used for the initialisation of variables and creating arrays, and little else.

`startup` is used where some items

```

Program: Media Track startup
I Executed as startup
I version 2

_running = FALSE

delay on
can_run = proc app_startup
delay off

if (can_run)
_running = TRUE
poll
_running = FALSE
endif

delay on
proc app_windup
delay off

```

Fig III: new resource

might need to register with other items — yes, we use this registration concept in other places, it can be very useful. poststart is used by an item that has had other items registered with it if it needs to call special routines.

One, two or all of these could be empty in any particular application item, but they must exist as procedure definitions otherwise the program will crash.

Now that we have created this routine we can backtrack and modify the program resource startup. Figure III shows the new resource which makes more sense with the additions.

We set up the global variable that shows that the program is not running properly yet. Switch on the hourglass to show that there might be a wait and then execute app_startup to get all the bits of the program initialised and running. It returns true or false and if false we skip to the end because there was a fault.

Otherwise we set the _running variable to true, and start to multitask, when we finally exit we set the _running variable to false, run the app_windup procedure and stop.

Now you can run this and there's really not much of a change although more is going on inside. Largely because we have no application items registered.

Ultimate control

Open up the file resource because we are now going to create something completely new. Press Control+N for a new resource and call it zonal, when the next dialogue appears you need to do something different than before: Click on *Memory buffer* and then *Okay* (Figure IV).

You have now created a structure but there is no datafile to go with it. Open it up and create the fields shown in Figure V, you will need to create two new datatypes, string16 and string32 which are strings with the specified number of characters.

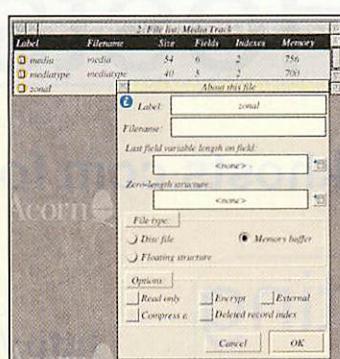


Fig IV: click on Memory Buffer

Now go back to the procedures resource and create the first of our new application items, this one is called control, the first block of code for it is shown in Figure VI.

The first line shows how this item registers itself with the main application code, and this is the only line we need outside the procedures.

In control_init we initialise our variables and arrays, the key line to note is the dim statement which uses the z

```

control_appon = proc app_register_item("control")
def proc control_init
local zna
ctrl_curzone = CTRL_ZONE_NONE
dim z zonal ctrl_zones[CTRL_MAXZONES]
for zna=0 to CTRL_MAXZONES-1
ctrl_zones[zna].name = "zone" + #str(zna)
ctrl_zones[zna].label = "funny" + #str(zna)
ctrl_zones[zna].open = FALSE
next
return TRUE
endif
def proc control_startup
return TRUE
endif
def proc control_poststart
return TRUE
endif
def proc control_windup
return TRUE
endif

```

Fig VI: first block of code for control

If you save this and run it, still nothing happens apparently but there is a way we can look at what is going on.

Tracery and output

I have mentioned and shown the print command several times but what does it do? And where?

Get the application running and then click in any resource window. Now press F10, the S-Base command line will pop-up. Any standard print commands send their output to this window, also you can type in instructions here while the program is running. Try:

print app_curitem

Now try lvar and you get a list of procedures and variables giving their type and/or value. You can even quit the program by typing poll exit.

One final tip, if your S-Base program gets into an infinite loop — hold down both Control keys and you will exit to the command line.

Summing up

I had hoped to cover more in this article but it has been important to go over the why of what has been done to ensure you can use it and to explain how the various new S-Base commands work.

On the Web site this time is an application that has been taken a little bit further than we reached this time, the control resource has been extended and its window pops up when the program runs, so if you have S-Base you can download the application archive and install it in the usual way, or you can just unpack and run the archived application.

Next time we will see how to get this window up and perhaps even get away from the skeleton and start our first application-specific piece of code.

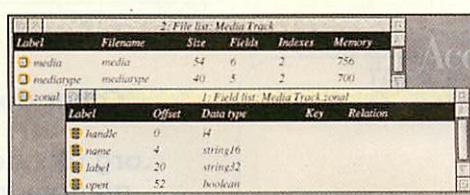


Fig V: create these fields in the new structure

option and gives zonal as the structure to use. What this does is create an array and each element of this array is composed of the structure zonal which itself contains four variables.

The for..next loop that follows shows how you access the fields inside the structure in each element of the array using the “.” meanwhile the @str function is similar to the BASIC STR\$() function and turns the value in brackets into a string. The S-Base version is much more versatile than the BASIC version but we don't need that versatility here.

You can see how each of the application event procedures returns the value TRUE, otherwise an error would be generated.



Fig VII: the S-Base command line window

Steve Turnbull
stevet@acornuser.com

Visit <http://www.ukhosts.com> for special offers

domain hosting

£60! +VAT pa

Includes 100mb Web Space, Own Control Panel
Unlimited POP3 e-mail and e-mail forwardings
FTP access, CGI-BIN, ASP, Ready Made Scripts

no hidden extras

all prices include all fees

no transfer charges

Main Site
<http://www.ukhosts.com>

Support Site
<http://support.ukhosts.com>

.info £9! +VAT pa

* minimum 2 years

Winter Special

2 yrs .info registration/1 yr hosting
£60! +VAT

.co.uk £5! +VAT pa

* minimum 2 years

.com £12! +VAT pa

* register for up to 10 years

Other domains also available

.org.uk, .net, .org, .li, .ch, us.com
.gb.com, gb.net, uk.com, uk.net
.cn.com, .qe.com, .za.com, .hu.com,
.se.com, .br.com, .uy.com,
.eu.com, .ru.com, .no.com, .sa.com

Main Site
<http://www.ukhosts.com>

Support Site
<http://support.ukhosts.com>

domain cloaking

£2! +VAT pa

* cloak to an existing domain
* 5 e-mail forwardings + catch all e-mail
* metadata - description & keywords

For more details and ordering

<http://www.ukhosts.com>

sales@ukhosts.com

FREEPHONE: 0800 587 2409

Mousing around with Logitech

It seems that *RISC OS* users just conclude that the majority of peripherals available to *Windows* users are unusable on *RISC OS*.

This simply isn't true and, thanks to Stuart Tyrrell, our friendly furry friend the mouse is now no longer a compatibility issue.

It's true that *A7000*, *NC*, *RiscStation* and *MicroDigital* computer owners have had full mouse compatibility for many years, the majority of *RISC OS* users however have *RiscPC* machines and have been limited to Acorn's proprietary mouse interface.

One thing I've realised when talking to people about our *DigiFlash* product and its use of the PS2 keyboard port for power is that many people are unaware the *A4* laptop, *RiscPC*, *NC* and *A7000* keyboard sockets are standard PS2!

So you've always been able to use keyboards available to PC users!

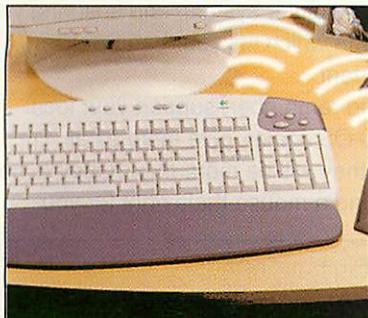
The STD PS2 Adapter

If you have any Acorn branded machine except for the *A7000* range and *NC* systems you will have Acorn's own propriety mouse connection. Mice that would normally just connect into a modern *Windows PC* cannot be plugged into this port.

Stuart Tyrrell has had a PS2 converter for some time now – however the cost was prohibitive to many and meant the dwindling stock of Acorn compatible pilot mice were still a cheaper solution even though their price has rocketed over the last year.

Now he has developed a new solution to the problem, which takes the form of two small connectors and a 10cm length of cable - his latest *PS2 Mini Adapter*. The electronics are very neatly hidden away inside one of the connectors and the whole adapter simply plugs into the back of your computer and the mouse then plugs into the adapter.

Your machine can still be pushed up



against the wall, as it is just a couple of small connectors and has a small length of cable it really doesn't take up any room at all.

For the majority of installations no software, and no configuration is required, simply plug in and go, it is really that easy.

The adapter can be changed into different modes of operation, simply by holding down different combinations of mouse buttons while switching the computer on. It even has the scope for future device drivers, for instance, so the wheel on wheel mice scrolls the contents of windows. But the default configuration is suitable for most.

At under £20 the PS2 adapter from STD makes buying a replacement mouse an affordable exercise once again.

What I look for in a mouse?

Shape - Most are a uniform shape however if you are left handed ensure the mouse is shaped to be compatible with your use.

Size - Small, short, long, fat, finding a mouse compatible with your hand size is important.

Buttons - Vital, check the mouse has three distinct buttons, many mice that seem to have just two buttons also have a wheel, the wheel when pressed acts as the middle, menu button. The wheel when pressed should give a distinctive click. This isn't much of a problem today, two button mice are out of fashion, in fact it's all the rage now to have mice with five or more buttons.

Corded - A corded mouse has no running cost, however a cordless mouse will use batteries. Cordless mice typically have a small receiver box which can dangle behind the computer, most if not all use radio rather than infrared, the latter will obviously fail to work if something gets between the mouse and the infrared receiver, taking my desk as an example it's sometimes difficult finding the mouse. I'd always choose a radio-based cordless mouse.

Ball, or ball-less - Optical mice in my opinion are a must, their price has dropped and my own Optical mouse started life at *RISC OS 2000 Show*, and it's never suffered from friction problems. As an example of my confidence with these mice, all the computers we supply, both new and second user are supplied with optical mice, the price difference

between the two types is very small, the trouble-free operation is worth the extra expense.

The Logitech Range Groupings

Logitech offers a wide variety of mice, and trackball devices. Some are corded, others are wireless but both types have typical balls to track the movement of the mouse or the newer mice now come with optical sensors which are far more accurate and reliable than mice with dependencies on friction of the mouse ball.

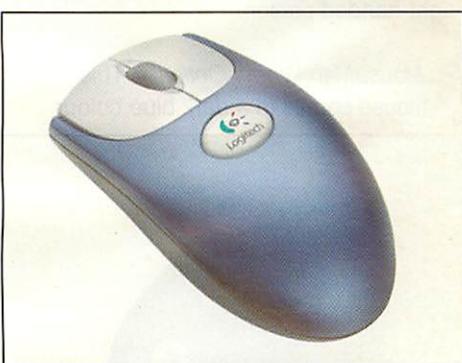
Logitech offers five distinct shapes of mouse:

Pilot

Very much like the *A7000*-style mouse supplied by Acorn, it is a medium sized mouse with two main buttons, and a wheel which acts as the third button.

Three mice are available in this range:

- *Wheel Mouse Optical* Blue in colour with a translucent dark blue base this



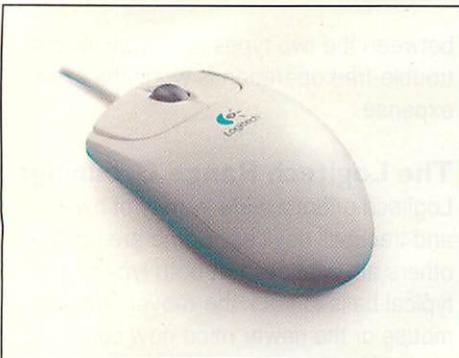
is the mouse I have used for a couple of years now.

- *Pilot Wheel Mouse Optical* - The above mouse is a bit of a dead



product, as the *Pilot Wheel Mouse Optical* is identical in shape, size, however is white in colour with a translucent dark grey base, but available for less money!

- *Pilot Wheel Mouse* – This model of the pilot is the low cost version, it

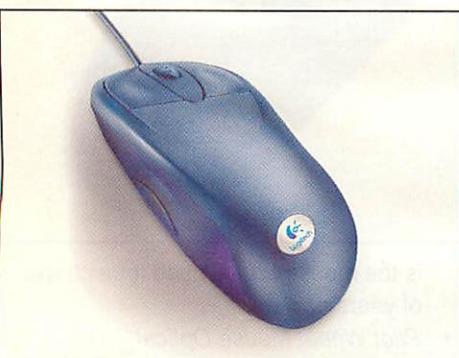


incorporates a ball rather than using optical technology, however it is the same in colour, shape and size as the *Pilot Wheel Mouse Optical* apart from not having a translucent base.

MouseMan

The *MouseMan* is a new-style mouse – it was the chosen mouse for the ill-fated *RiscPC 2 Phoebe* machine, many will remember the prototypes being demonstrated with an oddly angled mouse with one high side. The latest generation *MouseMan* is a bit more subtle and rounded. It is still higher on the left-hand side and so is more suited to a right-handed person.

- *MouseMan Wheel Optical* – This mouse comes in a dark blue colour



and incorporates an optical sensor.

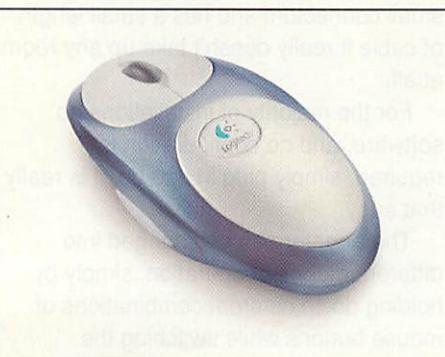
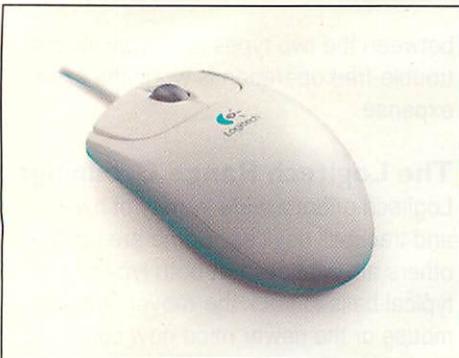
- *Cordless MouseMan* – As above, however comes with a built-in



transmitter rather than being restricted by a cable. For a few pounds more

however you can have the *Cordless MouseMan Optical*...

- *Cordless MouseMan Optical* – This mouse is a far better buy than its

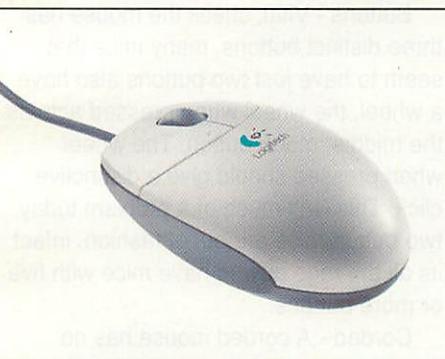
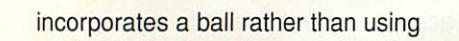


lesser sibling the *Cordless MouseMan* as for just a couple of pounds extra you get an optical sensor instead of a wheel. The only negative point I can think of is that it will most likely go through batteries faster, but I think that's a small price to pay to gain a friction problem-free mouse!

Mini

The *Mini* mouse shape is a smaller version of the *Pilot*, ideal for small hands or children.

- *Mini Wheel Mouse* – This mouse is the



only one available in the mini style, it is corded and features a ball.

TrackMan

This is Logitech's fixed position trackball device, hard to describe, it's a mix between the old-style *MouseMan*, ramped higher on the left hand side, however it curves around the ball. Allowing your hand to fit snugly round the device, allowing your thumb to operate the ball and fingers to operate the mouse buttons without lifting or adjusting your hand.

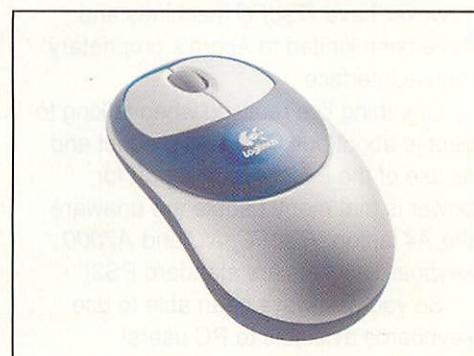
- *Cordless TrackMan Wheel* – I'm a bit confused as to why you would want a stationary mouse to be cordless, after all if you're not moving it often why is

the cable a problem? Personally I'd find replacing the batteries periodically more frustrating. Odd.

Cordless

This mouse design is much like the *Pilot*, however it is longer – I'm used to my fingers falling over the front of the mouse buttons. However with the *cordless* mouse design the buttons finish before the front of the mouse which felt a little odd at first.

- *Cordless Optical Mouse* – Recently launched, this mouse is a superb



addition to the Logitech range. Dark blue in colour, with a dark translucent blue base this mouse is like the *MouseMan Cordless Optical*, however better suited to left-handed people.

Final Words

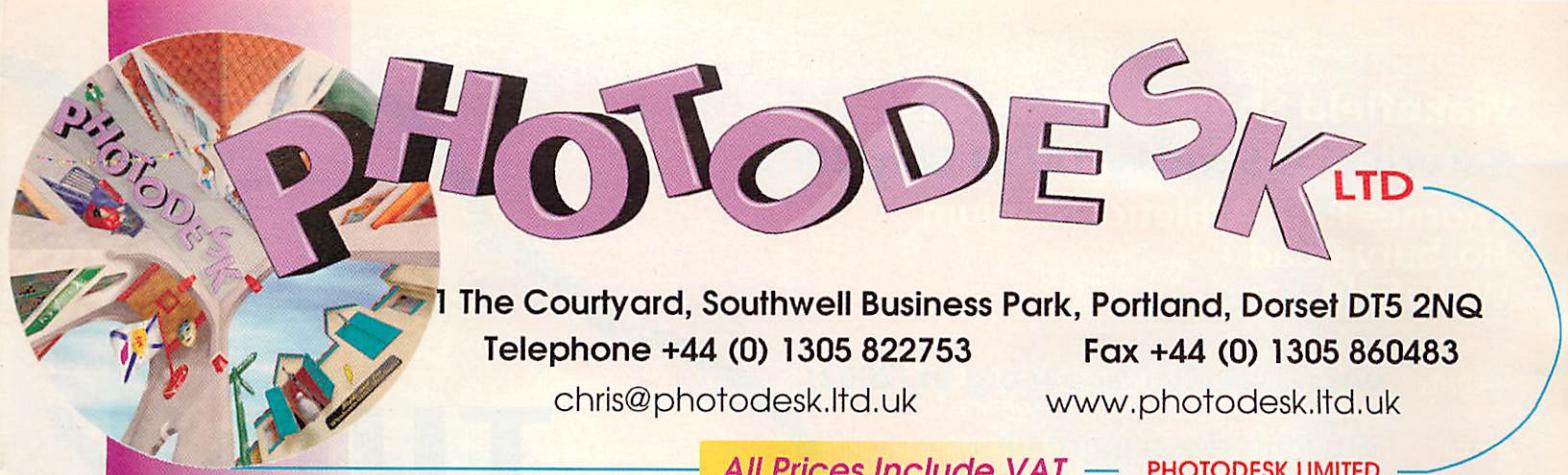
Over the last couple of years, the optical technology in my mouse has been excellent. I've never once had a problem with moving the pointer around my screen, the days of me cursing my *RiscPC* mouse have long gone.

The Logitech range starts at £15.99 with the basic *Pilot Wheel Mouse*, and the *Pilot Wheel Mouse Optical* has a suggested retail price of £24.99. The cordless units have a suggested selling price of £49.99, but trust me, it's money well spent two months after the purchase and you realise you have had trouble-free use over that time!

I've covered Logitech, however there are many other brands of PS2 mice available. A mouse is a very important component for the smooth operation of your computer system, and ensuring you find one which fits your hand well is important.

And remember, support your local *RISC OS* dealer, give them a call, I'm sure they will be more than happy to help you find a mouse that's right for you.

Neil Farnham-Smith
neil@farnham.tv



PHOTODESK LTD

1 The Courtyard, Southwell Business Park, Portland, Dorset DT5 2NQ

Telephone +44 (0) 1305 822753

chris@photodesk.ltd.uk

Fax +44 (0) 1305 860483

www.photodesk.ltd.uk

All Prices Include VAT — PHOTODESK LIMITED

Mad March Offers & April Fool Sale*



Free 64 MB & 16MB SmartMedia

With every Fuji 2.2 Megapixel A210 camera

only £220

FinePix A210

Free 32MB & 8MB Compact Flash

With every Canon A10 Zoom Camera

only £280

Free PHOTODESK
studio quality imaging package

Worth £135.00

With every Camera order worth over £300

Free



With every SmartMedia or Compact Flash Reader

only £90

Free PHOTODESK
studio quality imaging package

Worth £135.00

With every Canon S800 or S4500 Printer



including: Photo
Real

*all offers hold while stocks last and expire on 30th April 2002

These offers cannot be used in conjunction with any other offers

Wakefield Show 2002 details

Saturday & Sunday 18/19 May 2002

Thornes Park Athletics Stadium
Horbury Road
Wakefield

website: www.wakefieldshow.org.uk/2002/

Advance tickets now available on-line

e-mail: showinfo@wacg.org.uk

Opening times

Saturday 10:30 to 17:30

Sunday 10:30 to 16:00

Attractions include

Games arcade

Developers village

Show theatre

Mayoral opening (Saturday)

Charity stall

Free car parking

Catering facilities



THINK

Wakefi

The Acorn

SPONSORED BY



ACORN USER

Spelling Computer

Ticket prices

Adults/Foundation/OAP

Juniors (5 to 16 years)

Weekend Adults

Weekend Juniors

Advance booking

↓

Adults/Foundation/OAP

Juniors (5 to 16 years)

Foundation / OAP

Weekend Adults

Weekend Juniors

At the door

↓

Adults/Foundation/OAP

Juniors (5 to 16 years)

Foundation / OAP

Weekend Adults

Weekend Juniors

Advance tickets available by phone, post or web site:



Chris Hughes, 95 Cumbrian Way, Lupset Park, Wakefield, WF2 8JT

(Advance tickets by post from 1st April, cheques only made payable to "WACG Show")



RISC OS

Field 2002

RISC OS Show

R Comp
Services



£4.00
£2.00
£6.00
£4.00
£4.00
£5.00
£3.00
£4.00
£8.00
£6.00

Under 5's FREE
Foundation rate on
production of
membership card

020 7742 3921
(office hours only)



High speed computing

Acorn



Packed full of features, the fastest RISC OS computer in the world is available from Etc. Systems.

Order your dream RISC OS computer today!!

Call us for friendly advice, visit our Web site or e-mail us for further details. We stock RISC OS software and accessories.

Tel: 01302 337559 • Fax: 01302 337564

Etc.

P.O. Box 519 • Doncaster • South Yorkshire • DN4 0GE
www.etcsystems.co.uk • sales@etcsystems.co.uk

GeneSys

With over 10 years of experience, GeneSys offers the professional service to RISC OS users in the South of the United Kingdom.

GeneSys offers authorised RISC OS 4 installation and is a registered developer. The full range of RISC OS systems, peripherals and consumables are all available. With GeneSys you get friendly, expert advice before your purchase and great customer care after!

Custom-built Windows and Apple computers are also available.

GeneSys has no call out charges!!

41 Riviera Drive
Southend-on-Sea
Essex. SS1 2QT

Tel: 01702 462385
Fax: 01702 469224
Mbl: 07850 553356

E-mail: sales@genesys.org.uk



CASTLE



Switching solutions from

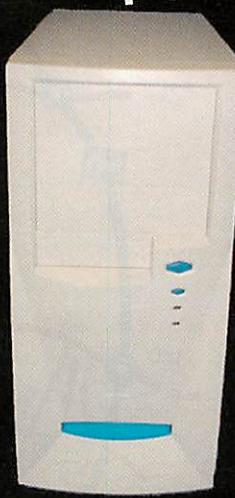
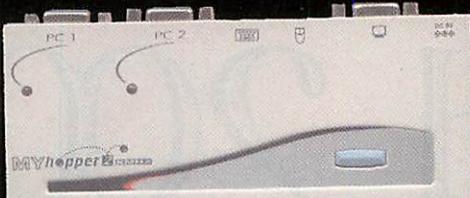
STD

Stuart Tyrrell Developments

Our keyboard-controlled switch allows the use of a single monitor, keyboard and mouse with two machines.

Price from just £99.95 inc.

Your Monitor



A range of custom high specification PC base units are available. e.g:

Duron 1000 / 128meg RAM / 40GB hard drive / CD / modem / speakers / keyboard / mouse

just £499 inc VAT

Other specifications available. Please ask for details.

Keyboard-controlled switch pack inc. PS2MouseMini is only £100 inc. when purchased with a PC.

See our full page advert for further details

Stuart Tyrrell Developments
P.O. Box 183, OLDHAM
OL2 8FB. United Kingdom

Tel: 0845 458 8803
Fax: 0870 164 1604

www.stdevel.demon.co.uk

Phone, Fax or email for a free product information flyer!

Whose desktop is it this month?

Did you work out who the owner of last month's desktop was? It belonged to none other than *The Paul Vigay, RISC OS programmer and Acorn User contributor.*

This month's mystery desktop is well populated with windows and applications. This person prefers all his favourite programs to be loaded when the machine starts. Other useful applications and utilities are available through the pinboard or *EasiFiler*.

More than twelve items have had to be blurred as this user is very personal and has had his name or names that would easily reveal his identity removed. He is known by friends and family as the most tidy person in town and insists on everything having its rightful place.

Nothing is put on the root of the hard disc for long: it gets moved to its folder or gets installed if it's an application recently downloaded with *Oregano*.

Messenger Pro is loaded and receives post from 7 newsgroups, 13 mailing lists and 7 e-mail accounts. This person uses *RISC OS* solely as a means of accessing the Internet. 4871 messages are currently in the safeguard of *Messenger* – the user doesn't know where he'd be if it weren't for such an excellent program.

The machine is a *StrongARM RiscPC600* with the latest rendition of *Select*. The iconbar shows two hard discs: 'Back Up' and 'Hard Disc'. 'Back Up' holds the user's entire MP3 collection and 2 weeks worth of backups of the user's main hard disc. Backing up is done via the user's own backup program which

shall remain anonymous because it would give the game away. 'Hard Disc' holds all the programs and files of the user. There are 16 icons in the root directory, all with different icons so the user can easily find their way around.

As mentioned above, the user uses *RISC OS* for Internet access. There are many Internet-related applications loaded: *Oregano* from Castle, *Messenger Pro* from R-Comp, *MSN* by Philip Hardy, *ForeCast* by the amazing Justin Fletcher, Colin Granville's *FTPc* and finally *WebGet* by Joseph Heemen. The first two applications are well known and are used by many Acorn users. *MSN* is an excellent *MSN Messenger* client for *RISC OS* and *ForeCast* downloads images from European and world satellites and displays them.

WebGet is loaded for downloading a whole Web site onto the users hard disc. The users other main interest is music. Let me rephrase. The user is a fanatic of all things music! The *StrongARM* machine also has a MIDI podule installed in it. The user's second most used application must be *AMPlayer* because, with a MP3 collection of 441 files, music is permanently blasting out from this machine!

The most striking thing about the screenshot is *Oregano* and the main page of *RTE*, Radio1's Web site. When the user isn't busy playing music one of the two radios in this room is tuned into Radio1.

This user maintains several Web sites. All his Web sites were written using *Zap* and tested with *Validator*. The user uploads his Web sites with *FTPc* and the powerful *SiteMatch* by David Edwards. *SiteMatch* shows what has changed on a Web site since the last upload and generates scripts for *FTPc*.

AMPlayer is actually the user's third most-used application. For

the last few years two applications have never been separated and fill positions #1 and 2. These two gems are *Zap* and John Kortink's *Translatr*. This user can't honestly remember when he used *Edit* last and has tied all copies of *StrongED* to a big pole and lit them as a sacrifice to the gods. *Zap* is as important as the mouse or the keyboard. *Translatr* can view almost any image available and it was used to blur details in the two screenshots.

A program called *Today* by James Miskin (dated mid-1995) is loaded. *Today* displays all the important happenings on any given day. Very useful program. The pinboard is arranged so that the most used applications are at the very edges and the really important ones such as *SparkPlug* and *ArcFS* are at the bottom. It's also designed so the 'digitalblasphemy.com' text doesn't hit any of the icons.

You may have noticed there is a program that sits on the very top of the screen. The program's name is *Clock* and it displays world-wide times as well as standard times and Internet Time. The program will only work in a 1280x1024 screen though as that's how the author designed it.

Between the floppy disc icon and the *Printers* icon there is *EasiFiler* (or more what's left of it!). *EasiFiler* is a application launcher. It holds 16 applications in big squares and it has shortcuts to folders in *!Boot* too. This user doesn't know how he would cope without *EasiFiler*.

The user in question can actually program, in *BASIC* and *C* as well as others. Some of the user's programs have been released but many lie in the 'Programs.Private' directory. Once again *Zap* is the main tool of the user's development environment.

All of the 441 MP3's in the music collection were encoded by the excellent *Shine* MP3 encoder. Add this to *AMPlayer* and you get a powerful MP3 package.

In the music collection reside artists such as Pavarotti, Barrington Pheloung, Abba, Bocelli, Celine Dion, Elvis, Gabrielle, Meat Loaf, Queen, Rod Stewart, the Beatles and U2. There's not many clues in that list, a mixture of all sorts.

Do you know the owner of this month's desktop? Find out in the next issue.



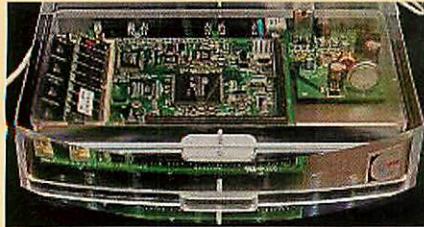
A busy desktop for a busy programmer



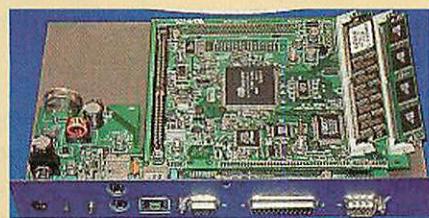
'Whitegate', Dunmow Road, Hatfield Heath, Bishop's Stortford, Herts, CM22 7ED
Cumana is a trading name of Cannon Computing



SLYM



Traditional base unit which comes with keyboard and mouse. Add your own monitor type. Ideal for existing networks in schools and colleges.



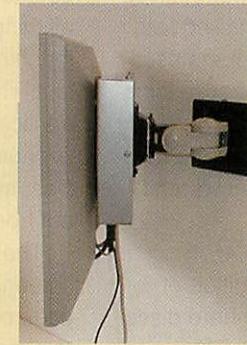
The Neuron 100 motherboard with the Cumana Cortex board



SLYM officially launched at the BETT 2002 show

Technical Specifications

ARM 7500FE (64MHz Neuron Board)
15" TFT Multimedia Screen (17" & 19" available)
32Mb EDO RAM
16Mb Flash
RJ45 10/100 Network card
2x PS2 ports
Serial port
16bit Audio
Audio out jack (stereo 3.5 320Ohm)
Parallel Port
SVGA Port
Reset Switch
RISC OS 4
Oregano Web Browser (Internet Ready)
Keyboard & Mouse



Wall mounted option. SLYM built onto the back of LCD screen.
Ideal for Hospitals, doctors surgeries and point of sale systems.
SLYM with Taxan LCD screen

£695 + vat
(wall mount extra)

Educational Services available from Cumana

Integrated Networking
Network Cabling
Wireless Networks
Educational Software
Internet Service Provision (Schools Internet Caller tariff)
Support Cover available for the whole of the UK
School Benching & Trolleys
Teacher Training
PCs & Laptops
Windows NT Servers
Computer accessories

Tel: 01279 730800 / 900

e-mail: sales@cumana.co.uk

Fax: 01279 730809

www.cumana.demon.co.uk

The latest education news

With Science Year in full flow, this month's column is dedicated to educational news with a scientific bent ...

Art for science's sake

Head on: *Art with the Brain in Mind* is a new interactive exhibition created through a collaboration between the Science Museum in London and the Wellcome Trust and in association with the European Dana Alliance for the Brain. The Exhibition features insights into the relationship between art and science through sculpture, painting and other installations. Well-known work such as David Hockney's *Camera Obscura* sit alongside specially commissioned collaborations between artists and high profile scientists such as the Director of the Royal Institute, Professor Susan Greenfield.

The exhibition opened runs until to 28 July 2002 and the new gallery space is a permanent area hosting temporary exhibitions relating to art and science, *Head on* is the first in this series.

Adding value

More National Curriculum resource packs from Softease (01335 343421) this month. *Life Processes and Living Things* is aimed at Key Stage 2 scientists. The aim is to link practical experience with scientific ideas and the use of ICT. The resources themselves combine text, graphics, sounds, animations and video designed to motivate pupils. The CD-ROM allows teachers and children to use the resources in their own work and costs £29 each for a site licence.

The science of life

The Life Sciences Portal – www.bio.com – is a good starting point for anyone looking for news and research details. As well as giving a brief breakdown of research, from the muscle gene influencing fat storage to information from tree rings linking rainfall and epidemics that decimated the native population of Mexico, there is a web link to find the full details.

In addition you can access webcasts on topics such as Advances in DNA and RNA Diagnostics hearing them live on the web site or you can opt to view a PDF transcript.

In addition **Bio.com** offers an online Career Center in the life sciences

industry, market research, plus reviews of software.

Going for a song

Welsh schools are being invited to get involved in a survey of the local song thrush population. Song thrushes have been in sharp decline since the 1970s, and Wrexham Biodiversity Group are keen to monitor the current situation. If you're not sure what a song thrush looks like visit www.garden-birds.co.uk If you'd like to be involved, they ask that you send your sightings, or requests for more information to Emily Meilleur of the Wrexham Biodiversity Group at emily.meilleur@wrexham.gov.uk

Supermarket science

ASDA and Marks & Spencer are both involved in Science Year. ASDA has unveiled Big Science which is a year-long initiative to make educational and interactive links to classroom-based learning and real life skills. Most schools will have heard already from their local ASDAs and you can find out more at www.asda.com

There are trails around their stores based on four themes: Clothing and Washing, Hair and Beauty, Micro-Organisms, and Fruit and Vegetables. These have been divided into levels, for various age groups and SEN pupils. There are also teachers' notes, and they've even prepared a parental leaflet for participating schools and online there are experiments and teaching resources.

Meanwhile M&S are presenting Are you what you eat? Aimed at secondary schools it is concerned with food and health and takes the form of a survey, with there's a free resource pack including activity cards, information sheets, teachers notes, posters and of course the 'Are you what you eat?' questionnaire. For more details ring 01634 729833 or visit www.marksandspencer.com/schoolsciencesurvey

Get coloured

Did you know that the National Physical Laboratory has developed an online experiment to encourage schools, to take part in practical science and at the same time help them with their research? Testing human reaction time, how humans perceive colour and how to use a shadow stick to find your latitude and

longitude, the results will be fed directly into an NPL scientific paper and should your school produce the most accurate determination of your position as part of the shadow stick experiment, you will win a cash prize of £500.

There are runners up prizes of £350 and £150 too! Find out what to do by popping along to: www.npl.co.uk/scienceyear. The winners will be announced and the prizes presented on World Metrology Day, Monday 20th May.

Summer exhibitionists

THE Royal Society's Summer Science Exhibition – www.royalsoc.ac.uk/education – will soon be upon us. Twenty leading researchers will be convening in London to present their work at the Exhibition, offering a mixture of cutting-edge science and multi-media displays. A great opportunity for 16-19 year old students to find out what's really happening at the forefront of the science subjects they are studying.

Chemistry, Biology, Physics and IT are all represented in the work of the research teams. Free, high-quality resources will accompany the exhibition enabling to allow teachers and students to undertake preparatory work, and follow up anything of interest after the exhibition. If you're not sure if this is for you, check out last year's exhibition at: www.sc1.ac.uk

On your marks...

The EPSRC Science Race is up and running and you can find out more at www.epsrc-scienceRace.net The Science Race has been going for several years now, but this year there's a new aspect to it – an online science-based Treasure Hunt that will take you to the four corners of cyberspace...

This month we have a ROSES Education special. The ROSES Web site at roses.jellybabym.net is a resource of free worksheets and P/SC OS software for education use. This month we are printing 'Two samples from the KS1 resources' which you may photocopy freely. Find out more on the ROSES Web site.

Ram Turnbull
educ@acornuser.com

Datacable Ltd

WWW.datacable.co.uk
Freephone 0500 - 69 00 70

Acorn / PC integration experts in the North

Specialist in nearly all
aspects of School IT.

Acorns

Avantis CD server
Laptops
PC's
Servers
Network Cabling
Network Hardware
Network Audit / Consultancy
Computer Benching
Wireless Networks
Projectors
Whiteboards
Printers
Education software
On-site support and training
(West Yorkshire only)

Music PCs
Music Suites
Software –
Winsuite / Textease / NetOp Schools

**CALL KHADAM
0500-690070 for further
information**



SMART



PHILIPS

Projector and Whiteboard Bundle

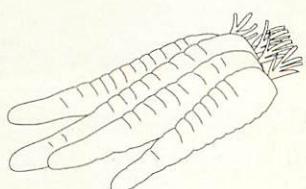
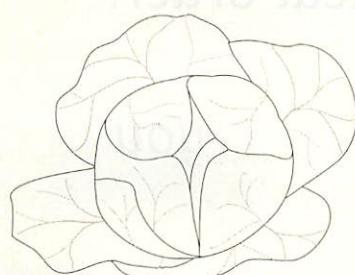
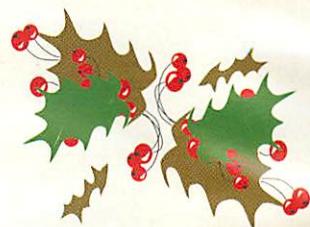
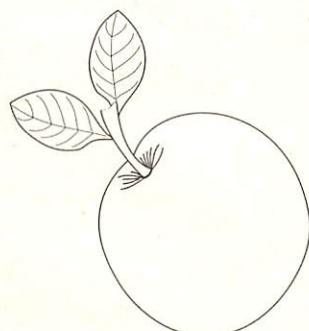
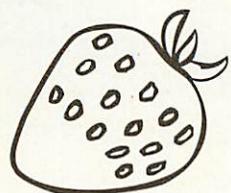
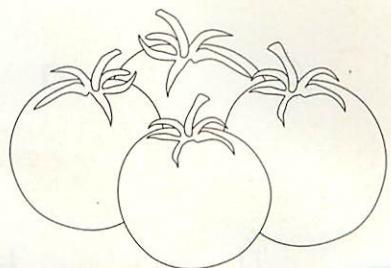
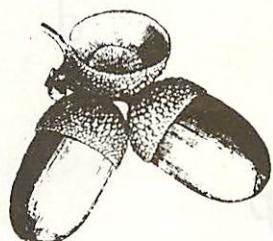
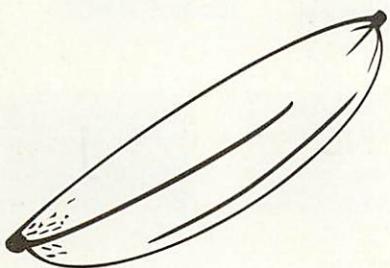
Philips cSmart + 60" Smart Board

Call for quantity pricing

£2695

Installation kit £295 Installation £450
For use with standard PC's

Some plants grow to give us food.
Draw a circle round those we can eat.



Name

Put the letters in alphabetical order.

g

a

f

d

c

b

n

k

p

l

s

j

w

z

r

q

t

x

Put the words in alphabetical order.

mum

dog

you

boy

she

her

For teachers needing mobile computing power



Dell Inspiron 2500

Inspiron notebook: For customers who require high-performing computer systems at aggressive prices.

Latitude notebook: Giving the education customer reliability, stability, superior battery performance, lower total cost of ownership and outstanding network connectivity.

The Latitude means education.

Upgrades

Screen

Inspiron 2500 from 14.1in TFT to 15in XGA £50

Memory

Inspiron (2500 and 8100) 128MB to 256MB SDRAM £100

Hard Drive

Latitude C800 from 10GB to 20GB Hard Drive £85

Latitude C800 from 10GB to 30GB Hard Drive £124

Latitude C800 from 10GB to 40GB Hard Drive £184

Storage Media

Inspiron 2500 from DVD ROM to CDRW £50

Inspiron 2500 from DVD ROM to DVD/CDRW Combo £150

Latitude C800 from CD ROM to DVD ROM £94

Latitude C800 from CD ROM to CDRW £128

Latitude C800 from CD ROM to DVD/CDRW Combo £224

Network and Internet

Network Card £95

Inspiron Internet Modem and 10/100MB Network Card £45

Software

Windows ME or Windows XP Home to Windows 2000 £75

Peripherals

Epson 1250 Perfection Scanner £79

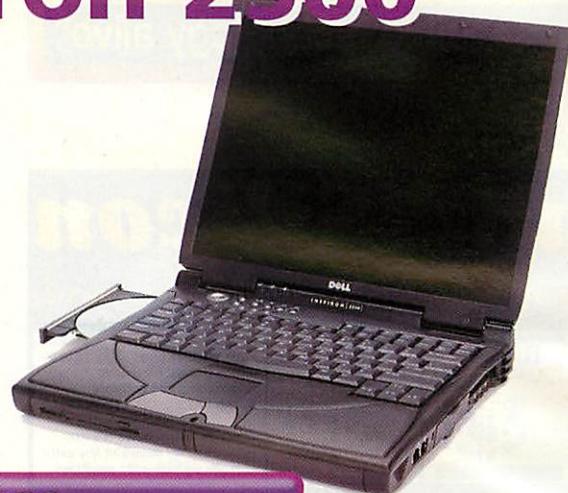


The EPSON Perfection 1250 is a high specification A4 scanner with a true optical resolution of 1200 x 2400dpi, fast scanning speeds and 48 bit per pixel colour depth for accurate colour reproduction, gives you outstanding results. It is extremely easy to set up and use. The USB interface enables Plug & Play and is bundled with a variety of software, including the new ArcSoft PhotoImpression 3 for image manipulation, and Presto OCR for converting text documents.

HP 845C Inkjet Printer £79



The HP 845C Inkjet printer gives you up to 600 x 1200 dpi resolution which means excellent color and rich black text. USB connectivity for PC and Mac. Speeds are 8 PPM in black and 5 PPM in colour. Paper tray takes 100 pages.



Specifications

1GHz 1.0GHz Intel Mobile Pentium III (256K Cache)

14.1 TFT 128MB SDRAM

8Mb Shared System Memory & 4Mb

Dedicated Video Card

20GB Hard Drive

Modular 3.5" 1.44MB Floppy Drive

Integrated 8 x DVD Drive and software

decoder

Internal 56k Modem

Microsoft Windows XP Home

Microsoft Works Suite 2001

1 Year European Collect & Return

Warranty

Add an executive carrycase for only £25

Only £854

plus VAT and Shipping

Dell Inspiron 8100 933MHz

Portable, Powerful and Practical

- 933MHz Intel Mobile Pentium III (512K cache)
- 15.1" SXGA+ (1400 x 1050) TFT colour display
- 128MB SDRAM
- nVidia GeForce2 Go AGP 4X Graphics with 32Mb DDR Video Memory
- 30GB HD & CD-ROM Drive
- 32MB Graphics IEEE 1394 - Firewire Port
- Internal 56k Modem
- Microsoft Windows XP Home
- Microsoft Works Suite 2001
- 1 Year European Collect and Return Warranty
- Add an executive carrycase for only £25



Only £1029

plus VAT and shipping

Dell Latitude C800

Choice of Intel Mobile Pentium III processors up to 1GHz performance.

- Intel Mobile Pentium III 850MHz;
- 15", SXGA+ (1400 x 1050);
- 256MB SDRAM;
- High performance 4X AGP 128bit graphics controller;
- 10GB Removable Hard Drive;
- 24 x CD Rom Drive;
- All-in-one design with Media bay for flexibility;
- Modular 3.5" 1.44Mb floppy drive;
- Internal **combo card** (10/100MB ethernet and 56k Modem);
- Nylon Executive Carry Case;
- Wireless LAN Antenna integrated;
- Two type II or one type III PCMCIA expansion slots;
- Ports: 1x parallel, 1x serial, 1x PS/2, 1x VGA, 1x S-video, 1x USB;
- IrDA 1.1 (Fast IR) infra-red communications port;
- Integrated DualPoint - TouchPad & PointStick pointing devices;
- High quality audio system with built-in speakers;
- Microsoft Windows 2000 Pro
- 3 Year Next Business Day On-site Service



Only £1199

plus VAT and shipping

We work to give you the best prices. But while putting this magazine to press, market prices can change. So if you find one of our prices on this page is no longer competitive, call us for the latest price. Don't get caught out paying more.

Call Sales on 0161 839 1113

Fax 0161 839 7751 Click www.mjmcomputers.com Email sales@mjmcomputers.com

We accept American Express, JCB, Mastercard, Solo, Switch, Visa, and Visa Delta. All prices exclude VAT.

MJM Computers is the trade name of Simply Software Corporate Ltd.

Repair Zone

421 Sprowston Road, NORWICH. NR3 4EH
Risc OS Computer, Audio, Video Service, Repairs.

Tel. 01603 400477 (Fax on request)
Email ray@repairzone.co.uk

For all your RISC OS repair needs

"Keeping sensible technology alive"

SCOTLAND

Liquid Silicon

• Computers & Music Hardware • Upgrades • Software • Cables etc.



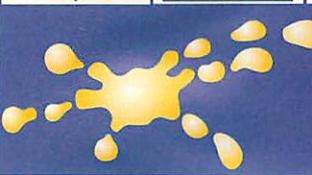
RISC OS 4 (DIY) £109.95
Fitting (ROMs only) £10.00
Fitting (ROMs, hard drive reformatting and software transfer) From £25.00

Carriage on machines is extra.
Please call for details of any extra charges on high-spec machines.

FREEPOST EH2725
Kirkcaldy, Fife, KY2 5BR
United Kingdom

Tel: 01592 592265 Fax: 01592 596102

sales@liquid-silicon.com
<http://www.liquid-silicon.com>



NORTH WEST

CTA DIRECT

168 Elliott St.
Tyldesley
Gtr. Manchester
M29 8DS

Acorn Dealer and RiscOS Centre of Excellence

Acorn Spares and Repairs

All Acorn Machines available on 0% finance

Installation, Networking

Repairs on a no-fix
no-fee basis.

See Main Advert on
Pages 4 & 5

Tel. 01942 797777

Fax 01942 797711

STATISTICS

Serious Statistical Software

We strongly support the RISC OS market by developing, producing and supporting our unique products for both simple and advanced data analysis. Call or email us and discuss your research, thesis, project and course work, and school performance analysis. We can help. Our products will handle all these and much else. Experience power and simplicity with 1st, 1stJr or 1stL. Why not ask for a loan copy for trial? 19 Station Road, Blackwell, Bromsgrove B60 1QB 0121 445 6887 and sss@argonet.co.uk

PRINTING

P·R·I·N·T·M·A·K·E·R

www.printmaker.co.uk/



Contact Chris Mercier 14-16 Eldon Terrace Reading Berkshire RG1 4DX

sales@printmaker.co.uk

0118 956 7947

SURREY

We are the one stop shop for
all your RISC OS requirements!



Surftec Ltd, Burma Cottage, Glen Road, Beacon Hill, Hindhead, Surrey, GU26 6QE
Tel: +44 (0)1428 608121 Fax: +44 (0)1428 608123 E-Mail: sales@surftec.com

SOFTWARE

ProCAD+

Windows version also available.
Now imports DWG format!

FREE demonstration copies of ProCAD+ and wProCAD+ available from the web site or 'phone/fax to get a copy by post. ProCAD+ single user £195 + VAT (£229.13) inc. UK postage. wProCAD+ single user £150 + VAT (£176.25) inc. UK postage.

Telephone now for details: 01392 214033 Fax: 01392 496599
E-mail: dsnell@mail.zynet.co.uk Web site: <http://www.zynet.co.uk/dsnell>

The advertisers index is on page 66

Problems solved at Kinetic speed

This month, we have a Hints & Tips special, concentrating on Castle's *Kinetic* upgrade card.

The *Kinetic* card offers the fastest *RISC OS* speeds currently available. However, you may come across some problems along the way, so here we give you the low-down on how to solve the most common problems users have experienced.

After this month, *Hints & Tips* is changing radically. See the box on the opposite page for further information.

Memory: RiscPC reports that there is 4Mb less memory than is actually installed.

So that *RISC OS* itself runs at *Kinetic* speed, *RISC OS* is transferred into the *Kinetic*'s fast SDRAM on startup. This 4Mb of memory is not user accessible, so is not included in the reported total.

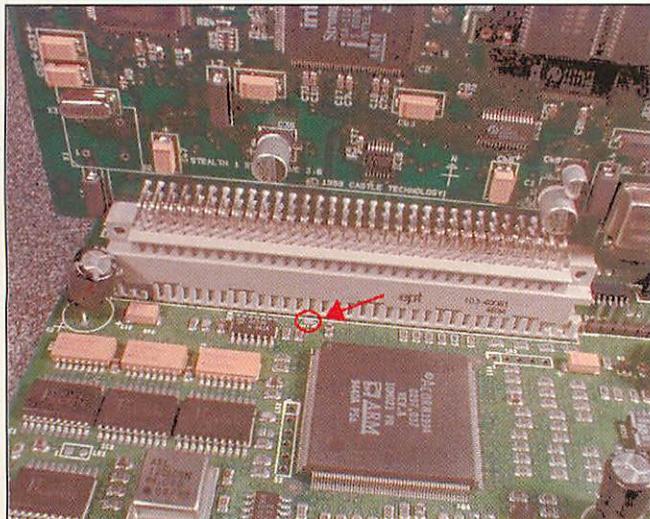
PC card: fails to allocate memory.

This is an issue with the *RISC OS 4.03* shipped with *Kinetic* cards. (Later *Kinetics* ship with *RISC OS 4.04* which has this issue resolved). Please download the *memfix* module from the Castle Web site at www.castle.uk.co/Link/memfix.htm and place it in your *IBoot.Choices.boot.predesk* folder.

This repairs a fault in the *RISC OS 4.03*'s memory allocation SWI called by the PC card software.

PC card: allocates memory but fails to boot.

You will need to be running *PCPro v3.06*.



C32 may need removing

If you are not yet running this version, please contact Aleph1.

PC card: Fails to boot fully, but the original StrongARM boots it OK.

A diagnostic sequence is useful. You will need to try various options to ascertain what needs to be done. Castle are confident there are no software incompatibilities between the *Kinetic*'s *RISC OS 4.03*, with *memfix 0.11*, (or *RISC OS 4.04*) and *PCPro 3.06*. Any failure to operate is down to hardware.

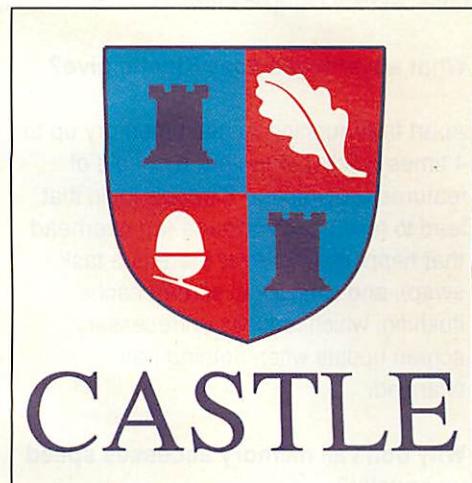
1. Try the *Kinetic* as a simple *StrongARM* card. Place a jumper on the third pair of pins from the left, at the top, of the *Kinetic* card, as viewed from the computer front. This will disable the extended features of the *Kinetic*. (If you have a *Kinetic* installation with flash ROMs on the rear of the *Kinetic card*, with no ROMs on the *RiscPC* motherboard this will fail. In this case, an equivalent test can be achieved by removing the SDRAM module from the *Kinetic* card.)

In the unlikely event that the PC card boots in this mode, but not in full *Kinetic* mode, please contact Castle.

2. Check your VRAM.. cards with Samsung KM428C256T chips will frequently stop the PC card. Try booting with the VRAM absent. If the PC card boots successfully with the VRAM absent, it is probably that a replacement VRAM is required. These are available from Castle and other good suppliers.

3. Try any mix and match of motherboard RAM present, which socket(s) its in, and with VRAM present or absent. If the PC card boots with a particular RAM absent, then it is most probably necessary to remove or replace that particular RAM. If the PC card won't boot with any option, please check if the C32 chip is still in place on your motherboard. See the photograph bottom-left of this page in order to locate C32.

4. If C32 is present, and you feel competent to remove it, then do so, but



remember this is done entirely at your own risk. If you prefer not to do this yourself, you should contact Castle or any competent repairer.

If after removing C32 you have no success, having repeated the three steps above, then again please contact Castle.

5. If all the rest fails, and the *Kinetic* machine still freezes a second or two after the PC card software has turned the PC screen black, it will be necessary to add a resistor, R73, value 220 ohms, to the rear of the *Kinetic* close to the configuration pins (R73 is not normally fitted during production).

If you feel competent to install R73, then do so, but again you do this entirely at your own risk. You will probably prefer to contact Castle or a competent repairer instead, either of whom can carry out the work professionally.

In the unlikely event that you still have a non-working PC card after all this, then again please contact Castle.

Why does DMA not work?

The DMA Manager will only permit a DMA transfer if the source/destination memory is in motherboard RAM. As most RAM you use is in the *Kinetic*'s SDRAM, DMA is usually not possible.

Why was the DMA Manager not rewritten to work better?

It is possible that the DMA Manager could be extended to create temporary buffers in motherboard RAM, DMA to and from these, and copy between these and the intended place in SDRAM.

The performance hit would drop a card capable of transferring at 4+ MB/sec down to less than 2 MB/sec. As the cards

that Castle had all operated at around 2 MB/sec non-DMA, this seemed an unnecessary complication.

What advantages does *Kinetic* give?

Apart from running its main memory up to 4 times quicker, there are a couple of features built into the *Kinetic*'s logic that lead to faster cache cleans (an overhead that happens whenever there is a task swap), and conditional screen cache flushing, which reduces unnecessary screen update when nothing has changed.

Why don't all memory accesses speed up equally?

This is complicated:

The memory on the motherboard is controlled by the IOMD chip. Whilst this is

clocked at 64MHz, and has a 32MHz state machine, it operates the DRAM with a 16MHz clock (i.e. 32MHz / 2).

Data Read into the StrongARM is read optimally as an 8 word burst to fill 1 cache line. IOMD fetches this from DRAM with a 2.5-1-1-1-1-1-1 clock sequence.. i.e. 9.5 cycles of 16MHz (593.8nS) for 32 bytes.

Data Write from the StrongARM is optimally written with a 2.5-1-1-1-1-1-5 clock sequence. i.e. 10 cycles of 16MHz (625nS) for 32 bytes.

For the *Kinetic* reading SDRAM, data is optimally read with a 7-1-1-1-1-1-1 clock sequence. i.e. 14 cycles at 66MHz (212.1nS) for 32 bytes.

For the *Kinetic* writing to SDRAM, data is optimally written with a 5-1-1-1-1-1-1 clock sequence. i.e. 12 cycles at 66MHz (181.8nS) for 32 bytes..

This shows that *Kinetic* has a burst

read time that is optimally 2.8 times faster, and a write time optimally 3.4 times faster.

This speed increase is not seen to the limit as there is a 1 cycle sync delay (max) whenever the *Kinetic* swaps from internal to motherboard access, or back again.

Additionally display VRAM, sound RAM and other IO are on the motherboard, so all accesses to these are at the slower rate.

NetBSD/arm32: NetBSD will not boot.

The NetBSD/arm32 bootloader requires the memfix module to be installed otherwise NetBSD will not boot.

The Editor extends grateful thanks to John Ballance at Castle Technology Ltd for providing the information in this article.

Hints & Tips Discussion Group

Hints & Tips (formerly *Rambles*) has undergone a radical change.

We are abandoning the traditional method of sending in queries to one resident expert and opening up the process for all to offer their help and knowledge on queries sent in. But how can this possibly work? The answer is that *Hints & Tips* is going online!

Thanks to SmartGroups, *Hints & Tips* has been transformed into an online discussion group. To join in, you just need to subscribe to the group and then you will be able to post both queries and answers. Each month, we will print highlights from this discussion group for the benefit of all readers.

If you are not connected to the Internet, you can still send in queries by e-mailing the Editor, stating your query and asking for it to be posted to the discussion group.

Be part of Acorn User - join *Hints & Tips* for free today!

Signup online at

www.acornuser.com/hints.php

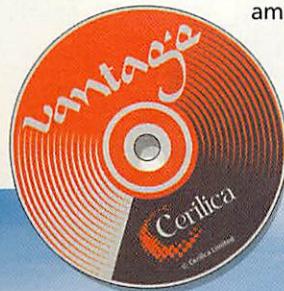
Please note: this discussion group is only for discussion relating directly to the operation of *RISC OS* computers, both hardware and software. We welcome discussion and queries on basic operation through to programming issues.

However, the group is not a forum for criticism of the magazine, *RISC OS* companies or individuals.

vantage

You want to design. You need to publish. You require Cerilica Vantage.

Created with the designer and publisher in mind, it is easy to take this revolutionary package for granted. Uncluttered, flexible and very rapid, the latest professional design and publishing system conceals its extensive underlying technology with amazing ease.



Never before has core developments like realtime

arbitrary ink simulation, the finest on-screen display with over 200,000 levels of anti-aliasing or a truly ergonomic user interface been brought together in a single package. That Cerilica Vantage is substantially more cost-effective than its equivalent rivals on any platform just concludes its winning case.

"The things that it was designed for, it does with an effortlessness unrivalled in any other drawing application on any other platform."

Acorn User, July 2001

£241.50 www.cerilica.com/vantage

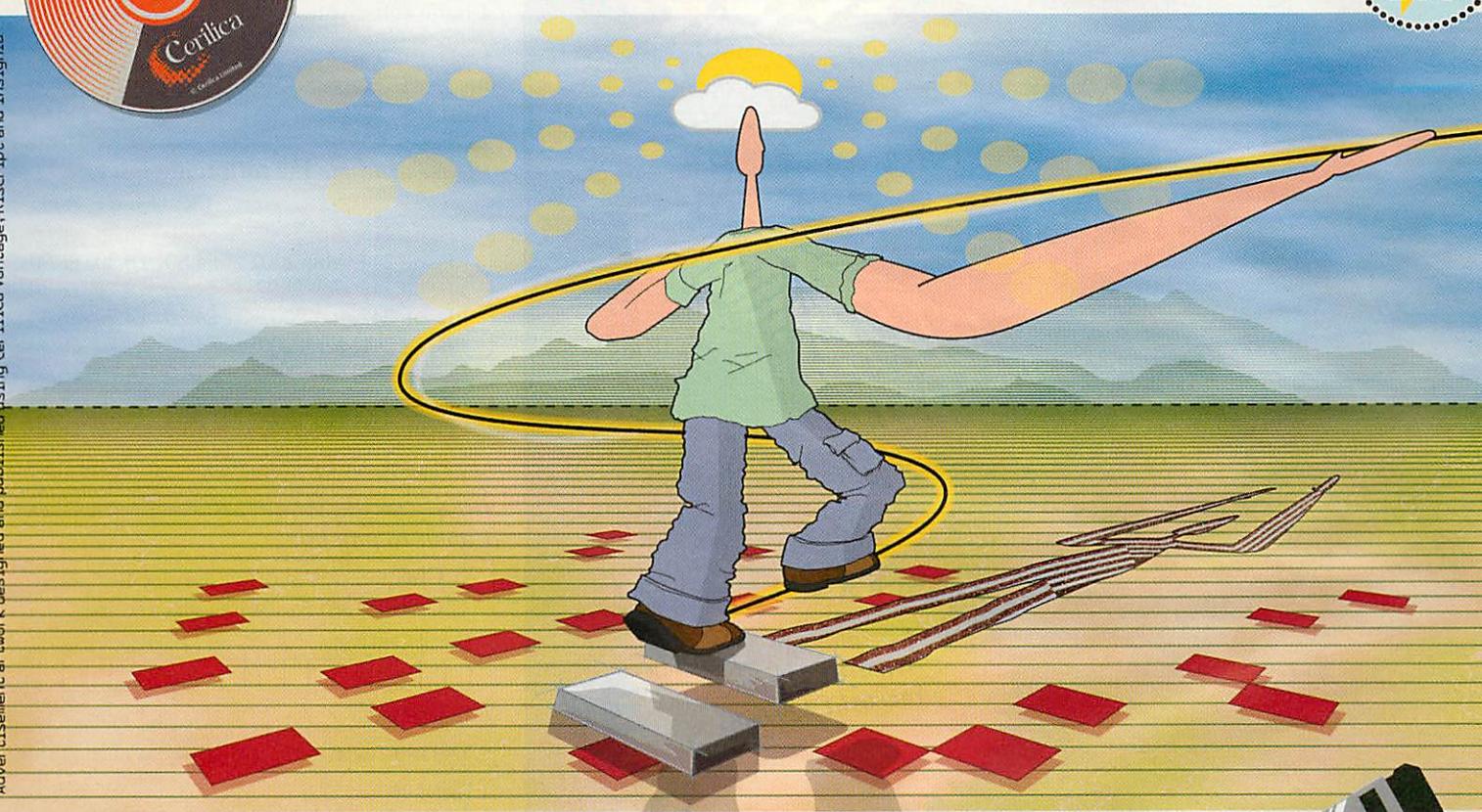
Insignia

Creating banner and title graphics can be a relatively lengthy and time consuming process when all you want is a stylish and swish graphic. Cerilica Insignia is designed to make this task painless and easy for *all* users from those who do not have the time to learn complex graphics packages to those who just want an effect quickly and simply. With a few clicks it is possible to create high quality titles that can be placed directly into any web page or used in print.

www.cerilica.com/insignia

New!
£39

Advertisement artwork designed and published using Cerilica Vantage, RiScript and Insignia



Batch EPS



Note that the Cerilica Publishing Pack and Batch EPS are supplied by e-mail.

Computer Concepts' ArtWorks™ design package has been widely used under RISC OS but following the cessation of development by its publishers many users have been seeking a way to move on. **Batch EPS** allows users of ArtWorks to export directories containing native files into their EPS equivalent. These resultant EPS files may be loaded directly into packages like Cerilica Vantage.

£19.50 www.cerilica.com/batcheps

Cerilica Publishing Pack



This compact product is an essential addition to any designer's or publisher's toolbox. Giving accurate control over three key aspects of publishing — CMYK bitmap separation, PostScript™ dotgain and monitor calibration — it allows users to gain much greater colour control when commercially printing.

£19.50 www.cerilica.com/ppack

RiScript



Reading PDFs™ is a painless task using RiScript; navigation is readily available via simple buttons whilst any interactive document contents are fully functional. Also, using your favourite RISC OS software (Cerilica Vantage, Ovation, Impression, TechWriter, etc.) to generate single or multi-page documents, RiScript will convert the whole document to a PDF maintaining all aspects including text, fonts, bitmaps and vector artwork.

£59.00 www.cerilica.com/riscript

All products available direct from Cerilica. Please visit the Cerilica web site for full product and availability details.

Cerilica Limited PO Box 40 Ross-on-Wye Herefordshire HR9 7WH England Telephone 0870 2411731

www.cerilica.com

Cerilica Vantage, RiScript and Insignia are available from the overseas stockists:



X-Ample Technology
The Netherlands



a4com
Germany



The Image Factory
Australia

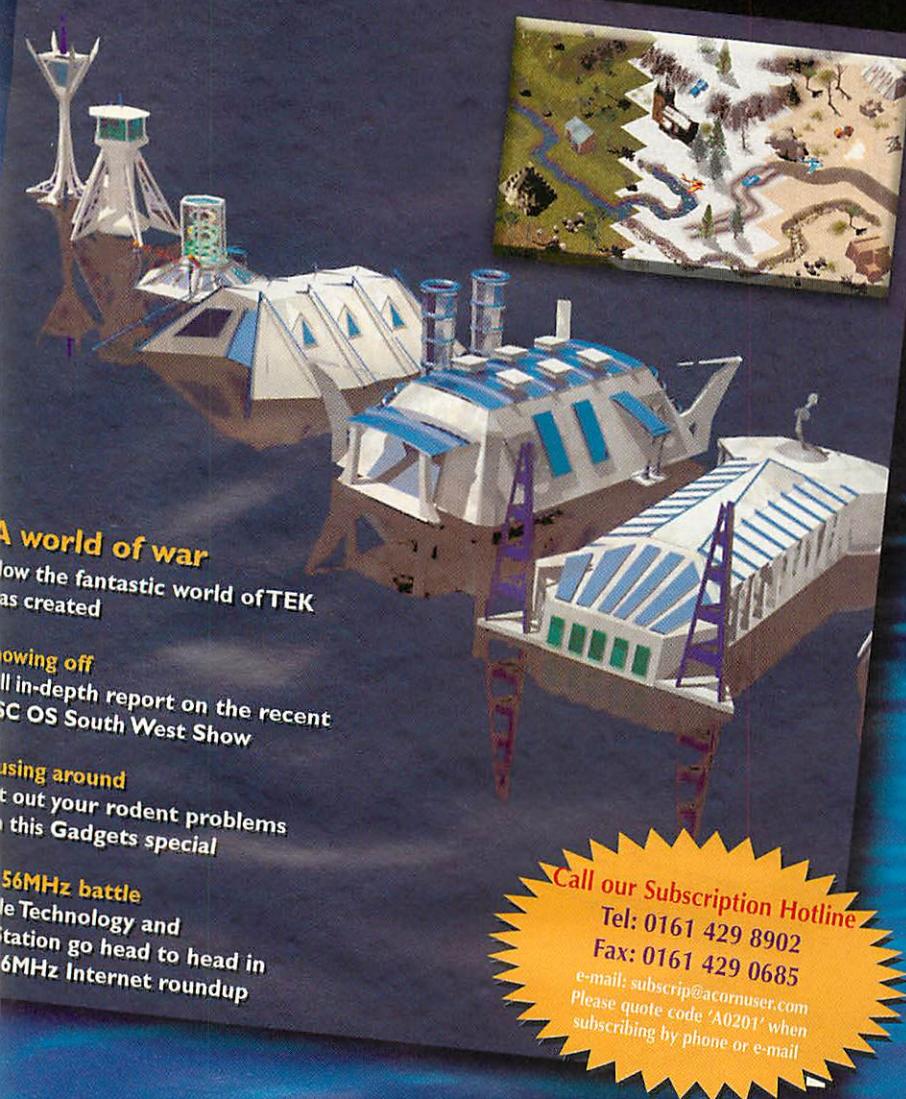


Educational Software & Devices
New Zealand

Acorn User

THE ALTERNATIVE FOR POWER COMPUTING

WWW.ACORNUSER.COM



Issue 244 March 2002

- Viewfinder 2 reviewed
- RiscStation Internet reviewed
- Jack Lillingston
- * Commands
- S-Base tutorial continued

Issue 240 Dec 2001

- RISC OS 2001 Show Report
- The machines you can buy now
- Gadgets for the holiday season
- All the regulars

Issue 243 Feb 2002

- Re-launch and redesign issue
- Odyssey Internet reviewed
- Insignia review
- BETT Review
- S-Base tutorial continued

Issue 239 Nov 2001

- RISC OS 2001 Show Guide
- Everything about RISC OS 4+
- What is XML all about?
- E-Commerce explained

Issue 242 Jan 2002

- Digital cameras from Fuji
- Digital cameras from Olympus
- BETT Preview part 2
- S-Base tutorial

Issue 238 Oct 2001

- Digital Video Editing & RISC OS
- Review: TextEase Presenter
- Fonts: From PC to RISC OS
- Processing NASA digital images

Issue 241 Christmas 2001

- Retro-gaming with Repton
- Networking your home
- BETT Preview part 1
- All the regulars

Issue 237 Sep 2001

- Kinetic Risc PC at 300MHz
- Viewfinder's new enhancements
- Digital audio to digital CD
- The Web explained

Please send me the following subscription/back issues:

Please subscribe me for:

Annual subscription (13 issues)

	New	Renewal	£
UK	AUIN0203Y	AUR0203Y	45.99
EU	AEN0203Y	AER0203Y	51.99
World	AWN0203Y	AWR0203Y	63.99

8-issue subscription

	New	Renewal	£
UK	AUIN02038	AUR02038	29.99
EU	AEN02038	AER02038	34.99
World	AWN02038	AWR02038	40.99

4-issue subscription

	New	Renewal	£
UK	AUIN02034	AUR02034	15.99
EU	AEN02034	AER02034	17.99
World	AWN02034	AWR02034	20.99

Please send me the following issues:

	UK	Europe	World
<input type="checkbox"/> Issue 245, Apr 2002	£4.80	£5.30	£6.90
<input type="checkbox"/> Issue 244, Mar 2002	£4.80	£5.30	£6.90
<input type="checkbox"/> Issue 243, Feb 2002	£4.20	£4.70	£6.50
<input type="checkbox"/> Issue 242, Jan 2002	£4.20	£4.70	£6.30
<input type="checkbox"/> Issue 241, Xms 2001	£4.20	£4.70	£6.30
<input type="checkbox"/> Issue 240, Dec 2001	£4.20	£4.70	£6.30
<input type="checkbox"/> Issue 239, Nov 2001	£4.20	£4.70	£6.30
<input type="checkbox"/> Issue 238, Oct 2001	£4.20	£4.70	£6.30

Any 2 back issues: UK £7.40 Europe £8.05 World £11.15
Any 3 back issues: UK £9.60 Europe £10.55 World £15.20

I wish to pay by:

- Cheque/postal order (payable to Tau Press Ltd)
- Credit Card (Visa/Mastercard)

Credit Card No:

Expiry Date: /

Prices include postage & packing

Your name as on card:

Signature:

All credit card transactions will be under the name Corporate Software

Name.....

Address.....

.....Country.....

Postcode.....Tel.....

E-mail.....

Send your completed Acorn User subscription/back issues form to:

Acorn User, Tau Press, 28a Middle Hillgate,
Stockport, Cheshire SK1 3AY

Telephone 0161 429 8902 or fax your completed Acorn User subscription/back issues form with credit card details to
0161 429 0685

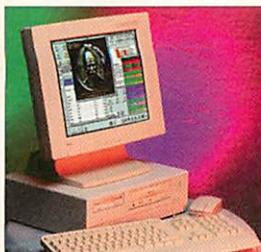
Have a query? E-mail subscr@acornuser.com

Please note e-mail is not secure, we do not recommend sending your order details as plain text though you can scan a signed form and send it compressed by e-mail.

Please tick here if you require a receipt

Please tick if you do not wish to receive mailings from other companies

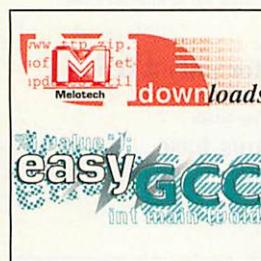
Technology solutions from Melotech.



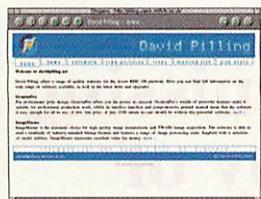
Speed, reliability and ease-of-use make RISC OS computers the ultimate choice for productive computing. The full range of RISC OS computers from Castle Technology and RiscStation are available from Melotech. Contact the Melotech sales team for advice and a free quote.



Melotech has a range of second-user RiscPCs available. Refurbished by Melotech engineers, these machines are available with a StrongARM processor from as little as £299.99. Full details are available on the Melotech Web site, or call and ask for a free, comprehensive quote.



EasyGCC makes programming in C under RISC OS much easier. EasyGCC features a project manager, library manager, macro editor and a compiler installer that ensures you have the latest version of RISC OS GCC installed. EasyGCC is available as a free download from melotech.co.uk.



Melotech offers a specialist Web design service for businesses of all sizes. Code is written by hand and is standards compliant, whilst sites are tested in a huge range of Windows and RISC OS browsers for full compatibility. Existing clients include Acorn User, the Conservative Party and David Pilling. Call now to discuss your requirements.



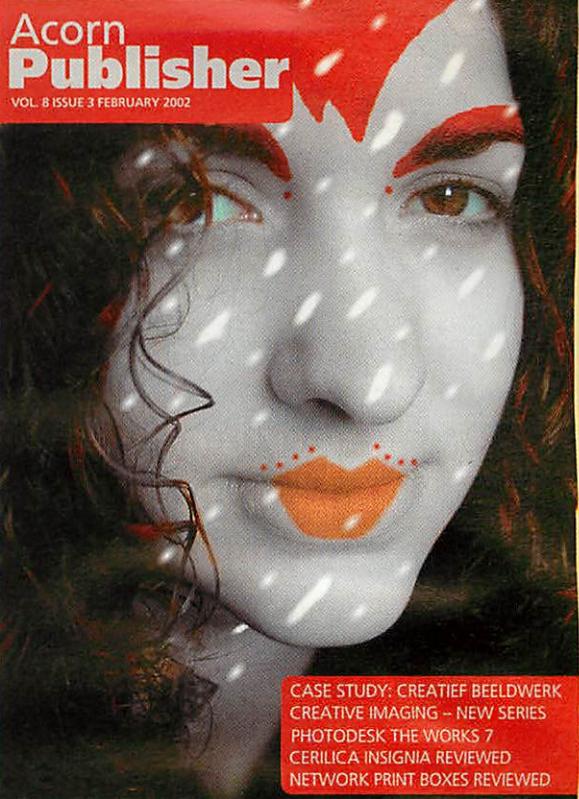
Give your company a cutting edge image with print design from Melotech. Melotech designers can produce professional quality brochures, catalogues, flyers and magazine adverts. Low pricing and top quality service combine to provide the ultimate choice for your print design requirements.

Full details of all products and services are available from the Melotech Web site, or call to discuss your requirements.

www.melotech.co.uk • sales@melotech.co.uk
Phone/Fax: 0113 242 4510



Melotech. Solutions for everyone. **Melotech**



CASE STUDY: CREATIEF BEELDWERK
CREATIVE IMAGING – NEW SERIES
PHOTODESK THE WORKS 7
CERILICA INSIGNIA REVIEWED
NETWORK PRINT BOXES REVIEWED

TAKE A LOOK AT RECENT ISSUES OF ACORN PUBLISHER:

TUTORIAL SERIES ON PHOTODESK
TUTORIAL SERIES ON EASIWRITER
IN-DEPTH REVIEWS OF CERILICA
VANTAGE & INSIGNIA
NEWSLETTER & MAGAZINE DESIGN
CREATIVE IMAGING
CASE STUDIES ON:
PROSPERO PRODUCTIONS
FLEUR DESIGNS
CREATIEF BEELDWERK
PLUS NEW SERIES ON WEB DESIGN

There is so much to be gained from reading Acorn Publisher, and all for just £29.95 a year (UK). Phone or email now for details of special offers for new subscribers.

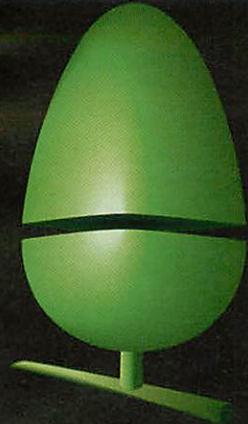
Acorn Publisher

Probably the best looking and most readable RISC OS magazine.



AKALAT PUBLISHING
P.O.BOX 231, BARTON
BEDFORD MK45 4HQ
tel/fax 01582 881614
email akalat@kbnet.co.uk

MICROBITS



**Everything you need
and want in RISC OS
computers, PCs, net-
works, repairs and
point of sale systems.**

**All under one roof
with our friendly,
expert and efficient
service.**

Front Offices,
Alfa Trading Est.
32 Adelaide St.,
Coventry CV1 5GT
Tel: 024 7655 0088
Fax: 024 7636 6452
Mobile: 0771 425 1011

E-mail: sales@microbit.demon.co.uk
Web: www.microbit.demon.co.uk

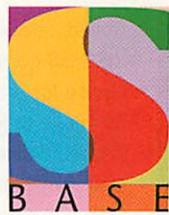


CASTLE



RiscStation
Risc Based Technologies

You need a new development environment



Why settle for BASIC or C when you can use S-Base?



S-Base is the premier Integrated Development Environment for RISC OS computers. Powerful yet easy-to-use, S-Base offers a wealth of professional features:

- ✓ Rapid Application Development features
- ✓ Integrated format and template designers
- ✓ Advanced integrated programming language, with 300+ commands and functions
- ✓ No compile or build step - just click to go
- ✓ Full database facilities, including advanced queries
- ✓ Standalone application and network options
- ✓ User group on the Internet



Available in three different versions to suit your needs and requirements, S-Base offers immense power and incredible value. The Professional version of S-Base even allows you to create standalone applications, so you can sell and distribute your software.

With the brand new series of tutorials in Acorn User, there has never been a better time to buy S-Base.

For full information on S-Base, please visit the Bluewater Systems Web site.

Try S-Base today risk free for only £69!

Please see our Web site for ordering details

www.bluewaternz.com/s-base

**bluewater
systems**
ARM Technology Specialists

**Don't risk missing
your copy of
Acorn User**

*Hand this form to your local newsagent TODAY
and he'll make sure you never miss out!*

Please reserve a copy of *Acorn User* magazine
every four weeks until further notice.

I will collect
 I would like it delivered to my home

Name

Address

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

A message to the newsagent: *Acorn User* should be available

from your local wholesaler. If not, contact the

Retail Sales Manager on 0161 429 8902

Omega worth the wait?

Dear Sir,

I have very mixed feelings as I write this letter to you. On the one hand, I am absolutely delighted now that I have finally upgraded to *RISC OS* 4, a 40 Gb hard disc, and more memory. On the other hand, I am disappointed that I will never be the owner of a *Microdigital Omega*.

I have in front of me the current *Microdigital* Web site news page. It is dated 30 November and states 'More information next week plus some really good news for Christmas'. I am writing this in late February!

When the two deadlines above had passed, I sent an e-mail to *Microdigital* asking them if it was time to cancel my order for an *Omega* and have my *RiscPC* upgraded. Three weeks later they had not replied. I believe the absence of a reply told me far more than a reply would have done, and I went ahead and had the upgrade done.

In fact, I find the absence of a reply absolutely astonishing. My e-mail was politely worded, but made it clear that if they did not provide me with any reassurance they were going to lose a £1000+ sale. If this is the way they treat people before they've got their money, what kind of after sales service could I expect if they ever did produce an *Omega*?

I regret the year I spent waiting for a non-existent computer. I wish I had upgraded to *RISC OS* 4 a long time ago – for those of you who haven't yet upgraded, I would recommend you do so.

On the plus side, I can spend the rest of the *Omega* money on other *RISC OS* products. My children have been constantly pestering me about a scanner – I told them to wait till we had the *Omega*, so we could have a scanner with a USB connection. I have now bought a scanner (from a *RISC OS* dealer, naturally) and regret that I have kept them waiting so long for it.

I wish *Castle* well with the *Kinetic* – I will not be buying, as it looks too much like an upgraded model of the computer I already own – and I wish *RiscStation* well with their portable and the *Evolution* (my next *RISC OS* computer?). I hope these two companies have not suffered too much from people waiting for the *Omega*. As for *Microdigital*, I believe they have

done more harm to the *RISC OS* market in one year than *Microsoft* could manage in ten. When PC users have expressed surprise that I still use an *Acorn* I have always told them that, although *Acorn* packed in making computers some years ago, there are three computers still making them. From now on I will be telling them there are two – I no longer acknowledge the existence of a company called *Microdigital*.

Mark Syder
via e-mail

*I am glad to hear of your successful upgrade to *RISC OS* 4. It is a worthy upgrade offering many benefits.*

*The Kinetic *RiscPC* is an upgraded version of the *RiscPC*. Indeed, you can buy the Kinetic card to upgrade any *RiscPC*. Users who do not have a StrongARM or who want *RISC OS* 4 and more memory will find the Kinetic card to be a very worthy upgrade. Certainly if you already have a *RiscPC*, you would not buy a brand new Kinetic machine, but instead just buy the upgrade card.*

Dear Sir,

I am sure I am not alone in thinking that the *RISC OS* market is at the moment in a vacuum and has been for a while. I am but a humble user of the platform, and probably like many others find the inadequacies of *RISC OS* a bind. I feel frustrated by the none appearance of anything to update the shortfall in software provided for what can be now considered the most basic properties of a computer: the ability to access the Internet reliably, and print images at the quality a modern printer specifies it can do.

It can only be a dream that *RISC OS*, even if it is a much more friendly platform to use, will be anything more than a computer found in fewer and fewer homes.

The long delayed arrival of the *Omega* and the more obvious lack of any real take up of *RISC OS* by other than cut-down versions for POS displays, gives me rather more than concern that the market is exponentially decaying.

It's no good shouting about *RISC OS* being less susceptible to e-mail virus, because while it's a temporary catastrophe for those that get hit, they

know of no alternative (*RISC OS* if advertised is not an alternative). It's no good shouting that the platform boots up quicker than *Windows* as they are not bothered.

I can readily and convincingly demonstrate to friends that *Vantage* and *OvationPro* as well as a number of other utilities on *RISC OS* are far more friendly to use than their *Windows* versions, but they continue to use their PC quite adequately and adeptly.

So, what is the strategy for creating new users of the *RISC OS* platform?

Perhaps someone could inform *Acorn User* readers what can be done. Or is it really far too late and we are now on the last gasp of air?

Phil Coates
via e-mail

*Quite to the contrary, when I demonstrate to PC-using friends just how quickly *RISC OS* boots up and how responsive it is, they are very impressed. They are even more impressed when I tell them the MHz of the processor and the age of the original *RiscPC* design. One friend in particular (who is Greek and had never heard of anything but *Windows* and *MacOS* before) says she should have bought an *Acorn* instead of the 800MHz *Windows* box she now puts up with. After she has seen how efficient and reliable *RISC OS* is, she wants to change over.*

*I see no reason why *RISC OS* cannot expand rather than contract. When we do get 32bit *RISC OS* and the great new hardware to go with it, this will give something for companies to market to home users. The better policy seems to be aiming at businesses and enthusiasts at the moment.*

*With the *RiscStation* laptop imminent, the new *neuron* developments from *Castle* and major new software such as *Vantage* appearing on the scene, I would say the *RISC OS* scene is not on its last legs and that there is a perfectly viable future ahead. I am quite sure, for example, that *Cerilica* did not write *Vantage* for a market with nothing left in it.*

**RISC OS* sells on its merits, which are reliability, efficiency and speed. And of course, its graphical user interface. It doesn't sell on numbers as *Windows* systems do. The fact that a 56MHz *RISC OS* system is still a viable machine for*

modern use speaks volumes about the relative speed and efficiency of the existing systems. Even a 166MHz Windows box would be beyond use for most people these days, but 56MHz RISC OS machines are still rolling off the production lines.

I would point out that the continued Omega delays do not say anything about the RISC OS market. That is merely one company failing to deliver.

Dear Sir,

I read with interest the letter from Eric Dobson regarding his unpleasant experience with his *Kinetic RiscPC* from Castle. This emphasises the point that the RISC OS platform is not up to scratch when it comes to the provision of Internet access.

Whether Mr Dobson misunderstood what he was being told, or the seller blatantly ignored informing Mr Dobson of the potential shortcomings of his

purchase has no discussion. The seller here is Castle and with their vast experience, I am sure they will not have misunderstood what Mr Dobson wished his computer to do.

To be sold a machine which immediately requires upgrades (as suggested by Castle and the *Acorn User Editor*) to fulfil the duties for which it was purchased seems ludicrous.

Phil Coates
via e-mail

I am sure there are many who will agree that RISC OS is "not up to scratch" when it comes to Internet software, but that is a rather scathing and unfair statement to make.

It is perfectly true that we do not have the latest bells and whistles as regards the latest browsing technology and currently we do not have, for example, a working ICQ client. However, this is not unique to RISC OS. I think it is fair to say

that any alternative platform to Windows suffers from being behind Windows when it comes to the Internet. Windows is the biggest market so things happen there first.

If you really want the very latest Internet technology straight-away and free of charge, then you simply need to use Windows. Many RISC OS users, myself included, do not find RISC OS particularly lacking for Internet use. We have a great Web browser in Oregano, excellent IRC facilities and some truly impressive e-mail clients.

The Kinetic RiscPC does not require upgrades to do



Is the RiscPC a suitable Internet machine?

ADVERTISERS INDEX

Akalat Publishing	63
Cannon	52
Castle Technology	IFC
Cerilica	61
CJE	11
CTA Direct	4, 5, dlr
Datacable	54
Datastore	34
EFF	37
Etc. Systems	50

Genesys	50
Image Software	18
Internet Cameras Direct	16, OBC
Liquid Silicon	9, dlr
Microbits	34, 64
Melotech	63
MJM	57
Photodesk	47, IBC
Pineapple	34
Printmaker	dlr
ProCAD+	dlr
RComp	14
Repair Zone	dlr
RISCOS Ltd	13
RiscStation	25
S-Base	64
simple-sites.com	40
Serious Statistical Software	dlr
Soft Rock Software	26, 34
St Matthew Publishing	37
Stuart Tyrrell Developments	33, 50
Surftec	29, dlr
UKHosts	44
Windfall Engineering	22

what it is sold to do. As supplied, Castle machines let you browse the Internet and send and receive e-mail. They are supplied with software for document creation which can also read Microsoft word files although quite obviously full compatibility could not be guaranteed.

If you want the full commercial versions of the software and the support that goes with them, you have to pay for them. Castle do not sell machines under false pretences.

Dear Sir,

The RISC OS world has a great opportunity to promote itself at the forthcoming Commonwealth Games in Manchester. Given that most RISC OS users are from the Commonwealth countries, why is there not a promotion/stand or Manchester Acorn users group meeting during the Games period?

The prospect of the solar laptop being seen by the African nations offers a golden opportunity. Has anyone seriously looked at athletic result recording with Acorn?

There is one man who wrote a program. I met him at the *British Veterans Athletics Champs* last year at Eton, but he had done it for self use only. We need programs for converting results in decathlon/heptathlon and the veteran multi events, which work on age graded tables. Think of the possibilities of 'working in the field' with a good RISC OS laptop.

This is an opportunity for all developers in the RISC OS field. How often do you have such an opportunity to promote a great system which most of the world knows nothing about? Show 'em, woo 'em, win 'em. Gold for RISC OS!

Margery Swinton Stirling

PHOTODESK LTD

1 The Courtyard, Southwell Business Park, Portland, Dorset DT5 2NQ
Telephone +44 (0) 1305 822753 Fax +44 (0) 1305 860483
chris@photodesk.ltd.uk www.photodesk.ltd.uk

All Prices Include VAT — PHOTODESK LIMITED

PHOTODESK



Special Offer: Dave Cowells 2 CD Tutorials worth £49.98 with any Olympic or Olympic upgrade add only £25

BRAND NEW CD "STARTING POINTS" £25 (Not just RISCOS or Photodesk, ideal primer for general photo editing, artwork generation on any platform.)

NOW ONLY £135.00



OHP 2 £40 (upgrade from 1.xx £13)



A presentation Package on CD-ROM:

Version 2 now has Powerpoint export.

OHP is a screen-based presentation package for use with RISC OS computers

OHP lets you compile Presentations comprised of a number of graphics files, which you create or purchase outside OHP, and show them on your computer's VDU as a full-screen presentation. OHP has facilities to order the graphics, give them consistent styling, add sound effects and help you present them to an audience. If you have access to an electronic projector, you can use that to project the presentation onto a screen.

The read-only version, OHP_Show (which is Freeware) can be given away with your presentations or used on any number of computers; this makes OHP presentations an ideal way of communicating or advertising.

NEW Digital Cameras

USB cameras, Card reader or USB podule required for RISCOS

Canon

OLYMPUS

Olympus C1 1.3Mpixel £239

Olympus C2 2.1Mpixel p.o.a

Olympus C1Z 1.3Mpixel optical zoom £265

Olympus C200Z 2.1Mpixel optical zoom £365

Olympus C700UZ 2.1Mpixel 10x optical zoom £625

Olympus C3020Z 3 Mpixel optical zoom £790.00

Olympus C4040Z 4 Mpixel optical zoom compact £525

Olympus C40Z 4 Mpixel optical zoom compact £735

Canon Powershot A10 1.3Mpixel optical zoom £299

Canon Powershot A20 2.1Mpixel optical zoom £375

Canon Ixus300 2.1Mpixel optical zoom £575

Canon Ixus V 2.1Mpixel optical zoom video £485

Canon Pro90 3.3 Mpixel 10x optical zoom £1075

Canon G4 2.1Mpixel 3x optical zoom £799

All cameras include PhotoShow software FREE (worth £25)

Photo Show



CALL FOR Quote
on any Camera*

Refurbs available, Please CALL

PRINTERS



Canon S450 £150

Canon S4500 A3 £350

Canon S800 £375

The S450 and S4500 are brilliant general purpose printers with separate ink tanks, the price includes a PhotoReal driver and a standard set of cartridges (4 colours) The printers may be upgraded to stunning photo-quality with the optional photo pack which includes a photo cartridge and pack of PR101 pro paper. (£55) Price of printers with photo pack S450 A3 £199, S4500 A3 £399.

The S800 is Canon's top of the range photo printer, it uses the latest Canon six ink technology with superfine droplet size. The PhotoReal driver utilises the printer's capability to produce really superb photographic output.

All printers include PhotoReal software

Worth £69

PhotoReal Printer Driver Software

by PHOTODESK

PhotoReal

NEW CANON PRINTERS ON THE WAY

PLEASE ASK ME FOR BROCHURES AND SAMPLE PRINTOUTS

LOOK £69

...for PHOTODESK
with any Camera,
Scanner, or Printer!

www.InternetCamerasDirect.co.uk



3 MEGAPIXELS
PENTAX
Optio 330
£448

3.3 MEGAPIXELS
RICOH
RDC7
£388

2.3 MEGAPIXELS
MINOLTA
E201
£208

3.34 MEGAPIXELS
NIKON
995
£585



EVERY CUSTOMER GETS
£2 OF DIGITAL PRINTING FREE

EXTENDED WARRANTIES
AVAILABLE FROM £20

FREE QBEO
PHOTOGENETICS 2.0
WORTH £24.99 WITH
EVERY PURCHASE

WIN 100 DIGITAL
PRINTS IN OUR WEEKLY PRIZE
DRAW - VISIT WEB TO REGISTER

£15 OF DIGITAL
PRINTS WITH ALL
ORDERS OVER £500

COMPARE & CONTRAST
DIGITAL CAMERA
SPECIFICATIONS SIDE BY SIDE

FREE MINI TRIPOD WORTH
£8 WITH EVERY CAMERA

icd²

share & print

NO LENGTHY DOWNLOADS
TO GET STARTED

1

Upload digital images to on-line album.

2

Store, share or order prints.

3

Prints delivered direct to your door.

FREE 50mb on line
photo album storage

FREE registration

FREE £15 worth of
prints with every
purchase over £500

MAKE & MODEL	CAMERA	+16MB CARD	+32MB CARD	MAKE & MODEL	CAMERA	+16MB CARD	+32MB CARD
CANON Powershot A10	£230	£244	£248	MINOLTA E201	£208	£222	£226
CANON Powershot A20	£288	£302	£306	MINOLTA E203	£218	£236	£246
CANON Powershot G2	£628	£642	£646	MINOLTA Dimâge 5	£508	£522	£526
CANON Digital Ixus (300)	£425	£439	£443	MINOLTA Dimâge 7	£718	£732	£736
CANON Digital Ixus V	£365	£382	£386	MINOLTA Dimâge X	£348	£362	£366
CASIO QV2900	£298	£352	£356	MINOLTA S304	£338	£352	£356
CASIO QV3500 +FREE Binoculars	£308	£322	£326	MINOLTA S404	see website	see website	see website
CASIO QV4000	£488	£503	£508	NIKON Coolpix 775	£270	£277	£281
COOL I-CAM	£45	N/A	£161	NIKON Coolpix 885	£458	£472	£476
FUJI Finepix A101	£148	£156	£182	NIKON Coolpix 995	£585	£599	£604
FUJI Finepix A201	£169	£177	£181	NIKON Coolpix 995 Premier	£675	£689	£693
FUJI Finepix 1400	£168	£176	£251	OLYMPUS C1	£158	£166	£171
FUJI Finepix 2600	£238	£246	£331	OLYMPUS C1 Zoom +FREE Case	£198	£206	£211
FUJI Finepix 2800	£318	£326	£301	OLYMPUS C40	£528	£536	£541
FUJI Finepix 30i	£288	£296	£381	OLYMPUS C200	£298	£306	£311
FUJI Finepix 4700	£348	£376	£391	OLYMPUS C700	£398	£406	£411
FUJI Finepix 4800	£378	£386	£511	OLYMPUS 2040 +FREE Leather Case	£348	£356	£361
FUJI Finepix 6800	£498	£506	£641	OLYMPUS 3020 +FREE Leather Case	£425	£433	£440
FUJI Finepix 6900	£628	£636	see website	OLYMPUS 4040 +FREE Leather Case	£578	£586	£591
FUJI Finepix F601	see website	see website	see website	PENTAX E1100	£168	£182	£186
FUJI Finepix S602	see website	see website	see website	PENTAX E1200	£388	£402	£406
JENOPTIK JD1300	£152	£167	£172	PENTAX Optio 330	£448	£462	£466
JENOPTIK JD160	£40	N/A	£248	PENTAX Optio 440	£618	£632	£636
JENOPTIK JD2300Z3	£230	£244	£376	RICOH RDC7	£388	£396	£402
JENOPTIK JD3300Z3	£358	£372	£376	RICOH RDC1500	£518	£532	£536
JENOPTIK JD350 multimedia	£120	£134	£138	RICOH Caplio RR10	£298	£316	£326
JENOPTIK JD350 video	£90	£104	£108	RICOH Caplio RR1	£548	£556	£562
JENOPTIK JD350E	£80	£94	£98	SONY DSC S85	£618	see website	see website
KODAK DX3215	£188	£206	£216	SONY DSC S75	£517	see website	see website
KODAK DX3500	£238	£252	£256	SONY DSC F707	£867	see website	see website
KODAK DX3600	£268	£282	£286	SONY P5	£479	see website	see website
KODAK DX3700	£268	£282	£286	SONY P50	£258	see website	see website
KODAK DX3900	£358	£372	£376	SONY CD200	£698	see website	see website
KONICA KD200	£228	£242	£246	SONY CD300	£867	see website	see website
KONICA KD300	£388	£406	£416	SONY FD200	see website	see website	see website
MINOLTA 2300	£215	£229	£233	see website	see website	see website	see website

READERS AND ADAPTERS

FUJI Z10 USB Smartmedia reader/writer	£29
JENOPTIK USB Compact Flash reader	£24
JENOPTIK USB Smartmedia reader	£24
SANDISK Compact Flash USB reader	£27

SMART MEDIA

FUJI 16MB	£9
FUJI 32MB	£15
FUJI 64MB	£30
FUJI 128MB	£60
SANDISK 16MB	£12
SANDISK 32MB	£17
SANDISK 64MB	£34
SANDISK 128MB	£68
TOSHIBA 64MB Smartmedia card	£33

COMPACT FLASH (TYPE I & II)

FUJI 16MB	£15
FUJI 32MB	£20
FUJI 64MB	£32
FUJI 128MB	£58
IBM 340MB microdrive	£178
IBM 1GB microdrive	£288
SANDISK 16MB	£16
SANDISK 32MB	£22
SANDISK 64MB	£35
SANDISK 128MB	£60
SANDISK 256MB	£118

MULTIMEDIA CARDS

SANDISK 16MB	£20
SANDISK 32MB	£30
SANDISK 128MB	£58

SECURE DIGITAL

SANDISK 16MB	£24
SANDISK 32MB	£34
SANDISK 64MB	£58

MEMORY STICKS

SONY 16MB	£28
SONY 32MB	£39
SONY 64MB	£54

BATTERIES & CHARGERS

4 x 1200mAh	£6.50
4 x 1800mAh	£11.50
4 x 1200mAh & mains charger	£16.50
4 x 1800mAh & mains charger	£20.50

All prices include vat (and delivery for orders over £100)

FOR ALL THESE GREAT DEALS AND MORE VISIT OUR WEBSITE



call 0870 745 1036

or fax 01484 845 947 or e-mail sales@internetcamerasdirect.co.uk

*Secure on-line ordering at [internetcamerasdirect.co.uk](http://www.internetcamerasdirect.co.uk) we use a 128 bit model to encrypt your credit card details within the browser on your PC. The details are not decrypted until downloaded onto our server. This is the most secure model. We use an encryption standard called Diffie-Hellman, which is a public key algorithm for key exchange, and is widely used on the Internet. InternetCamerasDirect.co.uk, 4 Peel Street, Marsden, Huddersfield HD7 6BW

